

COTTAGE

HOUSES

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COTTAGE HOUSES

FOR

VILLAGE AND COUNTRY HOMES.

TOGETHER WITH

Complete Plans and Specifications.

BY

S. B. REED, ARCHITECT,

AUTHOR OF "HOUSE PLANS FOR EVERYBODY," ETC.

WITH OVER ONE HUNDRED ILLUSTRATIONS.



NEW YORK:

ORANGE JUDD COMPANY,

52 & 54 LAFAYETTE PLACE.

1899

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P R E F A C E .

The title of this volume sufficiently indicates its character. Most of the plans were originally contributed to successive numbers of the *American Agriculturist*, since the publication of "House Plans for Everybody;" consequently are of recent date, and well suited to present tastes and requirements. There is abundant and gratifying proof of the general favor with which these plans were received in their original issue, and it is believed that this compilation of them in connected and more convenient form will be appreciated. General descriptions, and detailed estimates of materials, construction, and cost, are given with each plan—by which any intelligent person may readily comprehend the character of the buildings, and which will enable any builder of ordinary experience to prepare his estimates—corrected by the varying circumstances of locality and prices, and proceed to their erection. Nearly all these plans have been built from, and their practicability proven. They embrace a great variety of arrangement, and are adapted to meet the general want for convenient, comfortable, and economic homes.

S. B. REED.

New York City, 1883.



C O N T E N T S .



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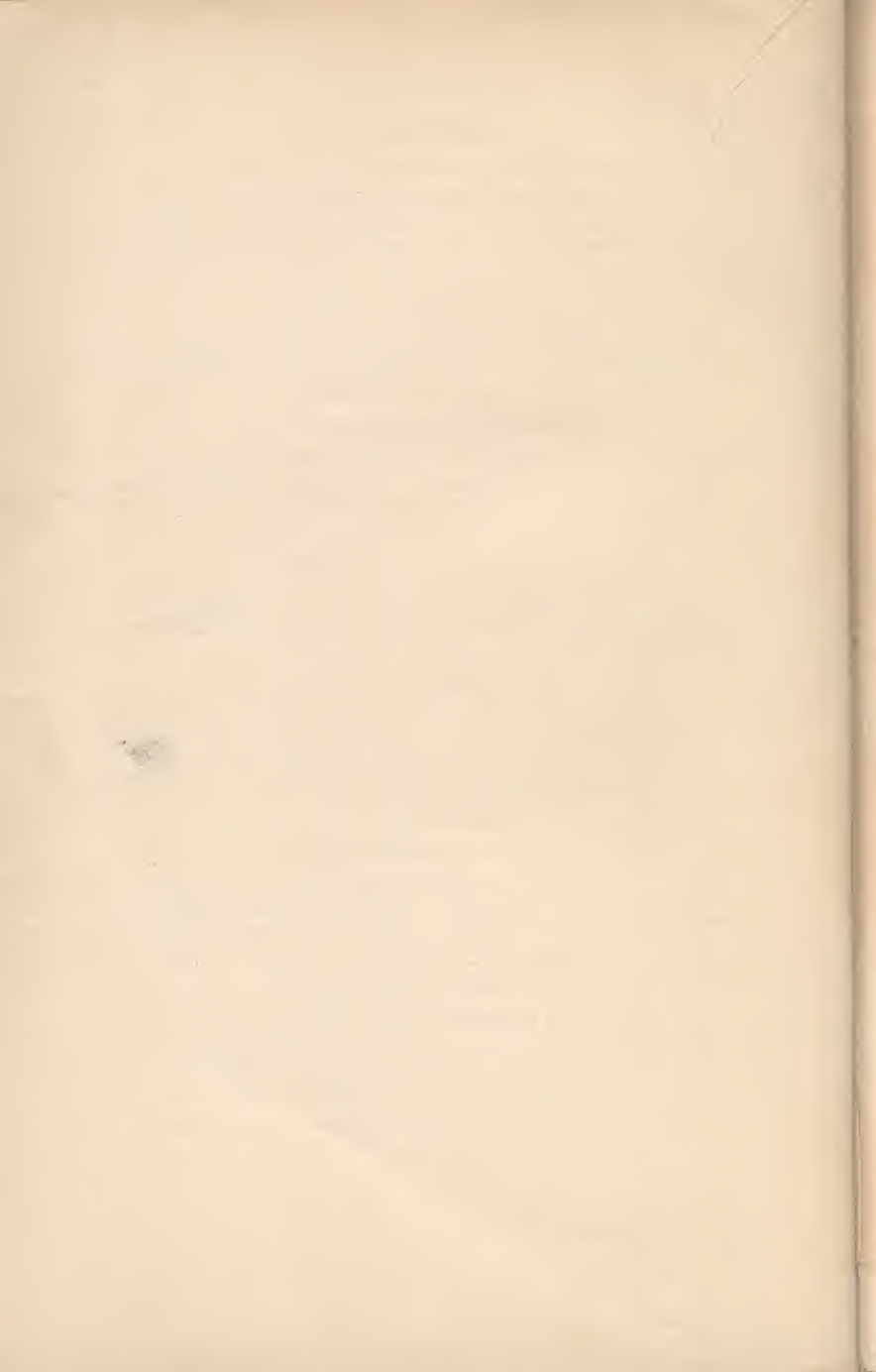
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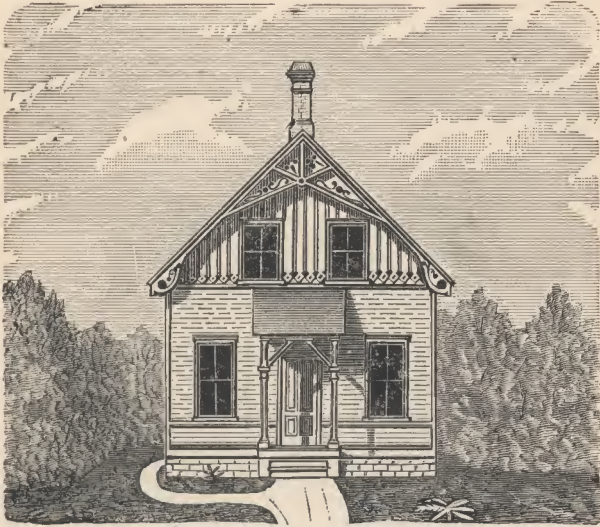


Fig. 1.—FRONT VIEW OF THE HOUSE.

A COTTAGE, COSTING \$600.

These plans are for a low-priced, five-room dwelling. Square outlines in building are most economical for enclosing a given amount of space. This form saves both in the first cost of construction and in the annual expenses for repairs. Such houses are more readily warmed, especially if the chimney is located near their centers, and the heat is retained longer. The plans here described embrace all the above advantages. Each side measures

20 feet, and the height averages the same. Though complete and thoroughly fitted for a small family, its accommodations may be increased if required in future by additions at sides or rear, or a part of the cellar may be finished as a kitchen.....EXTERIOR (figs. 1 and 2.)—Two elevations are given showing the front and left-hand side. The front has considerable variety in the details of finish; and a similar finish is intended for the rear. The sides

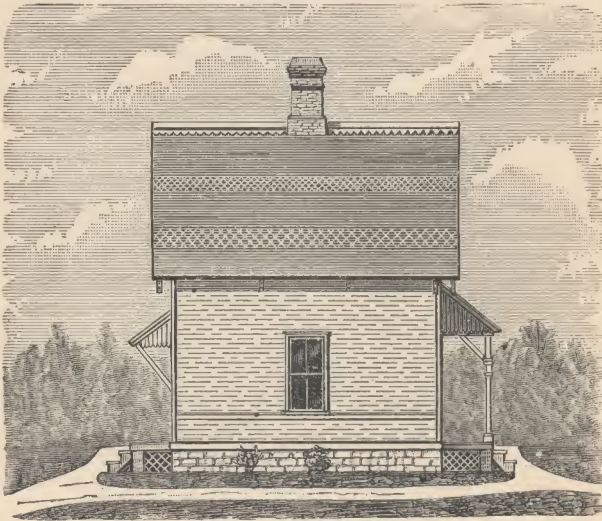


Fig. 2.—SIDE VIEW OF THE HOUSE.

are quite plain, with projections in harmony with the other parts. The roofs are enlivened by belts of rounded or pointed shingles. As a rule a proportionate amount of tracing and ornament is much more effective and becoming on a cottage than on a mansion. Good taste, however, would limit its use in any case, to the point of rendering some real service of support, or protection.....CELLAR (fig. 3.)—Height $6\frac{1}{2}$ feet, with foundations

showing two feet above ground. It is full sized, has two windows, and an outside area way. An opening is made in the chimney to admit a stove pipe. In many cases it would be desirable to divide this cellar by a partition

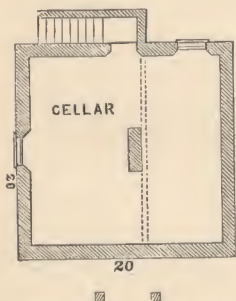


Fig. 3.—PLAN OF CELLAR.

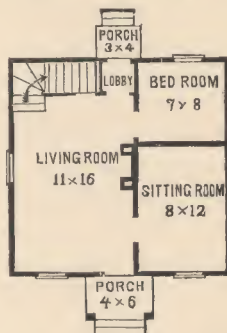


Fig. 4.—FIRST STORY.

along the line of the girder, making a kitchen of the larger portion, and a cellar of the balance. Those having such intentions, however, should build the foundations to show at least 3 feet above-ground, with less depth of excavations.....FIRST STORY (fig. 4.)

—Height of ceiling, 9 feet. The front entrance is from the porch directly to the living-room. - If in an exposed situation, "storm doors" may be hung in the frame of the outside or front door to open outward; or the porch may be enclosed with portable side panels of narrow ceiling, with a door at the entrance, which may be set up, or removed, as required. The rear entrance is through two doors and a lobby. If a rear light is wanted, the upper portions of these doors may have glass sash. The living-room is commodious, has an open fire-place, two windows, and

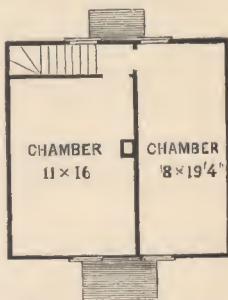


Fig. 5.—SECOND STORY.

inside doors leading to the adjoining rooms, and to the stairway to the second story. The sitting-room is small, but, if neatly finished, will serve as the parlor of a small family, where a few friends may be pleasantly entertained. It has one window opening to the front, and a mantel shelf. Another window may be easily added if desired opposite the chimney, though it would diminish the wall space for furniture, etc. The bedroom is also small, but will admit the necessary furniture, and a proper adjustment of the window sashes will insure the required ventilation. The space under the stairs is used as a closet, unless needed for stairs to a basement kitchen.....**SECOND STORY** (fig. 5).—Height at the plates, $3\frac{1}{2}$ feet, and following the rafters to the full height of 8 feet. There are but two rooms in this story. Other divisions may be made as required.....**CONSTRUCTION**.—The materials and general methods of construction of the house are similar to those described for Design II.....**ESTIMATE** of cost:

45 yards excavation, at 25c. per yard.....	\$11.25
780 ft. stone work, at 8c. per ft.....	62.40
1,500 brick in chimneys, at \$12 per M.....	18.00
260 yards plastering, at 20c. per yard.....	52.00
1,600 ft. timber, at \$15 per M.....	24.00
4 sills, 4×7 in. 20 ft. long.	4 ties, 4×6 in. 20 ft. long. 2 plates, 4×6 in. 20 ft. long. 1 beam, 3×7 in. 28 ft. long. 22 rafters, 3×4 in. 16 ft. long.
4 posts, 4×7 in. 13 ft. long.	
1 girt, 4×6 in. 20 ft. long.	
18 beams, 3×7 in. 20 ft. long.	
20 joists, at 15c. each.....	3.00
200 wall strips, at 12c., \$24; 100 siding, at 28c., \$28.....	52.00
Cornice materials.....	12.00
130 shingling lath, at 6c. each.....	7.80
22 bunches shingles, at \$1.25 each.....	27.50
85 flooring, at 28c. each.....	23.80
8 plain windows, at \$6 each.....	48.00
2 cellar windows, at \$2 each.....	4.00
8 doors, at \$6 each.....	48.00
2 stairs, \$15; 2 stoops, \$18.....	33.00
Closet finish and shelving, \$12; nails, \$9.....	21.00
Carting.....	8.00
Carpenter's labor, not included above.....	75.00
Painting, \$50; Incidentals, \$19.25.....	69.25
Total cost of the building, complete.....	\$600.00

DESIGN II. '7.



Fig. 6.—FRONT ELEVATION OF THE HOUSE.

A COTTAGE, COSTING \$750.

These plans are intended to supply a comfortable, neat dwelling, for those who can afford but a small expense. Allowing \$750 for the house, and \$250 for land, the interest and taxes amount to about \$6 per month, or from \$72 to \$75 a year. The accommodations are sufficient for a small family, and may be increased at any time by additions at either side or in the rear.....EXTERIOR (figs. 6 and 7).—The foundation to show $2\frac{1}{2}$,

feet above the graded earth, but this height should be increased for clay soils, to insure a healthful dryness to the interior. The general outlines are devised to secure economy, and at the same time present a pleasing and home-like appearance. The front veranda, rear porch,

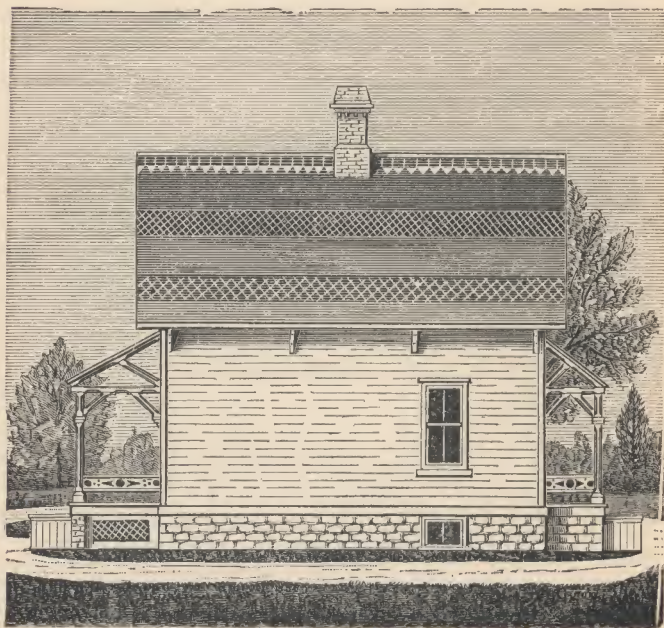


Fig. 7.—SIDE ELEVATION OF THE HOUSE.

and cornice projections serve largely to protect the side covering, and entrances, from storms, besides contributing cheerful and domestic effects.....CELLAR (fig. 8).—Height of ceiling $6\frac{1}{2}$ feet. It extends under the entire building, has an outside entrance from the rear, two windows, and stairs leading to the principal living-room.....FIRST STORY (fig. 9).—Height of ceiling, 9 feet. This story contains a parlor, living-room, and a hall entered

from the front piazza, and communicates directly with the living-room. A 5-inch thimble is placed in the left-hand chimney flue, on the parlor side, 2 feet above the floor. A mantel is placed immediately above the thimble, and in the middle of that side of the room. The living-room has an outside door from the rear, and windows on three sides. An arched alcove is formed at one end, with closets on each side. A part of one closet is utilized as a passage to the cellar, the remaining space being fitted with shelving.....

SECOND STORY (fig. 10).—Hight of the ceiling 4 feet at the sides, and following the rafters to the level of 8 feet. The steep roof favors "head room," so that the entire space may be used without inconvenience. The divisions are arranged to require little space for the hall, leaving the rooms as large as possible....

CONSTRUCTION.—The foundations are of broken stone, chimneys of brick, plastering "three coat work." The frame is of sawed timber, thoroughly fitted, and braced in all the upper angles of the principal parts. The side studdings extend from sills to

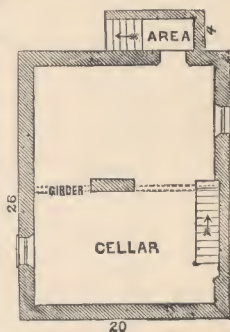


Fig. 8.—PLAN OF CELLAR (REDUCED).

plates, with plank ties notched into them, to carry the second story beams. The roofs are of the best quality pine shingles; those for the main roof are laid on $1\frac{1}{4}$ by 2-inch lath, and for the veranda and porch, on dressed planking laid face down. The timber work of the veranda and gables is dressed and chamfered. The flooring inside is of tongued-and-grooved spruce; outside of pine with paint-filled joints. The interior wood finish is of seasoned white pine. The painting is of the best materials, two coats. The colors best suited for outside are light "cool" gray for the

body, and light drab for the trimmings, with the chamfer work and sash cut in with siennas. ESTIMATE :

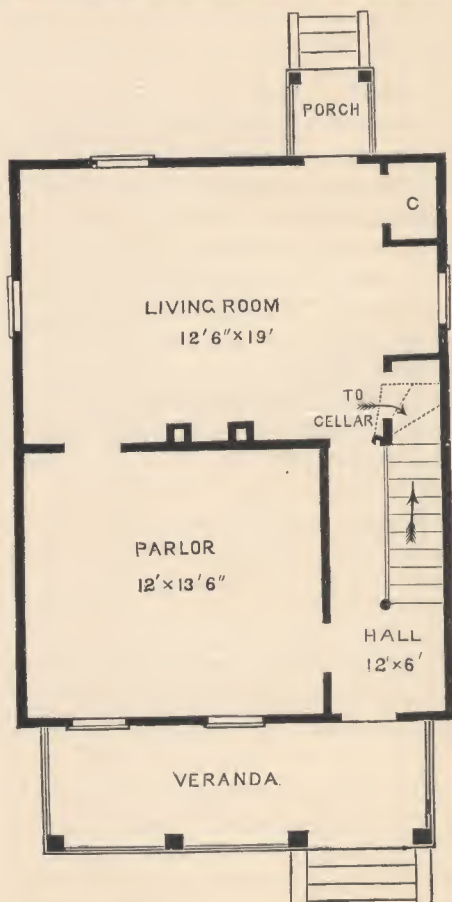


Fig. 9.—PLAN OF FIRST STORY.

58 yards excavation, at 25c. per yard.....	\$14.50
820 ft. stone work, at 8c. per ft.....	65.60
1,500 brick in chimneys, at \$12 per M.....	18.00
340 yards plastering, at 20c. per yard.....	68.00
2,156 ft. timber, at \$15 per M.....	32.25

2 sills, 4×7 in. 26 ft. long.	1 girder, 4×6 in. 26 ft. long.	
2 sills, 4×7 in. 20 ft. long.	34 beams, 2×7 in. 20 ft. long.	
2 ties, 4×6 in. 26 ft. long.	28 ratters, 3×4 in. 16 ft. long.	
4 ties, 4×6 in. 13 ft. long.	1 ridge, 3×8 in. 2 ft. long.	
4 posts, 4×6 in. 13 ft. long.	1 veranda, 3×7 in. 100 ft. long.	
25 joists, at 15c. each.....		3.75
200 wall strips, at 12c., \$24; 130 siding, at 28c., \$36.40.....		60.40
160 shingling lath, at 6c. each.....		9.60
32 planking for veranda roof, 4 1/2 in. at 16c.....		5.12
33 bunches shingles, at \$1.25 each.....		41.25
75 ft. tin gutters and leaders, at 8c. per ft.....		6.00
115 inside flooring, at 28c. each.....		32.20
34 outside flooring, at 15c. each.....		5.10
2 cellar windows, at \$3 each.....		6.00
9 plain windows, at \$6 each.....		54.00
2 vents, \$2; 12 doors, at \$6 each, \$72.....		74.00
2 stairs, \$30; veranda and stoop finish, \$20.....		50.00
Shelves and closet finish, \$10; nails, \$10.....		20.00
Carting, \$10; painting, \$60; cornice materials, \$12.....		82.00
Carpenter's labor, not included above.....		85.00
Incidentals, including various items.....		17.23
Total cost of the building, complete.....		\$750.00

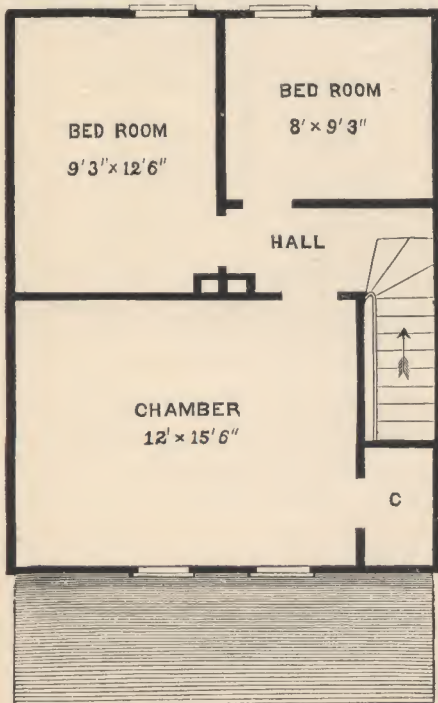


Fig. 10.—PLAN OF SECOND STORY.

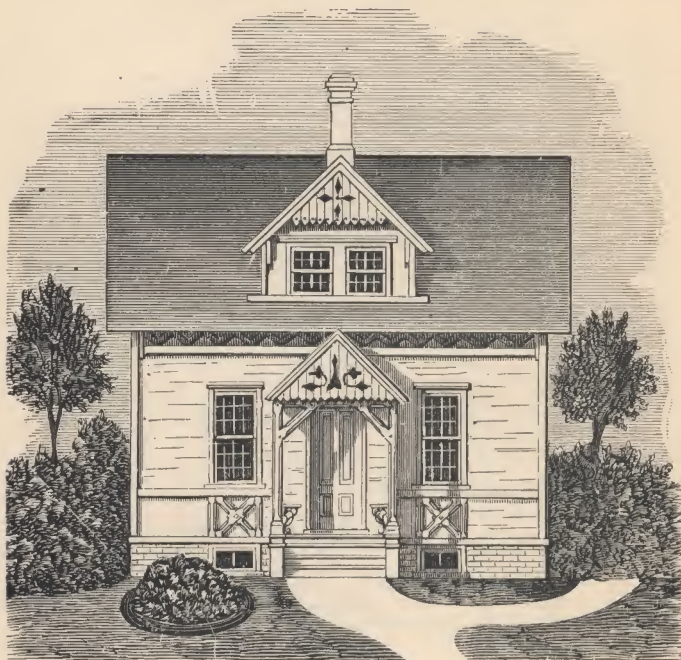
COTTAGE HOUSES
DESIGN III.

Fig. 11.—FRONT ELEVATION OF THE HOUSE.

A CONVENIENT COTTAGE, COSTING \$1,000.

These plans were prepared to meet the increasing demand for inexpensive and comfortable country houses. The question is frequently asked: "Can a dwelling be constructed for the sum of \$1,000 that will contain all the accommodations and conveniences required by an average-sized family, and withal have an appearance that shall not compromise one's idea of self respect?" The chief difficulty in the way of a satisfactory answer lies in the arbitrary number and character of the rooms required. As a rule, there must be the conventional parlor,

dining-room, kitchen, entrances and closets, in the first story, and with several chambers above; altogether approximating establishments costing double or treble the sum

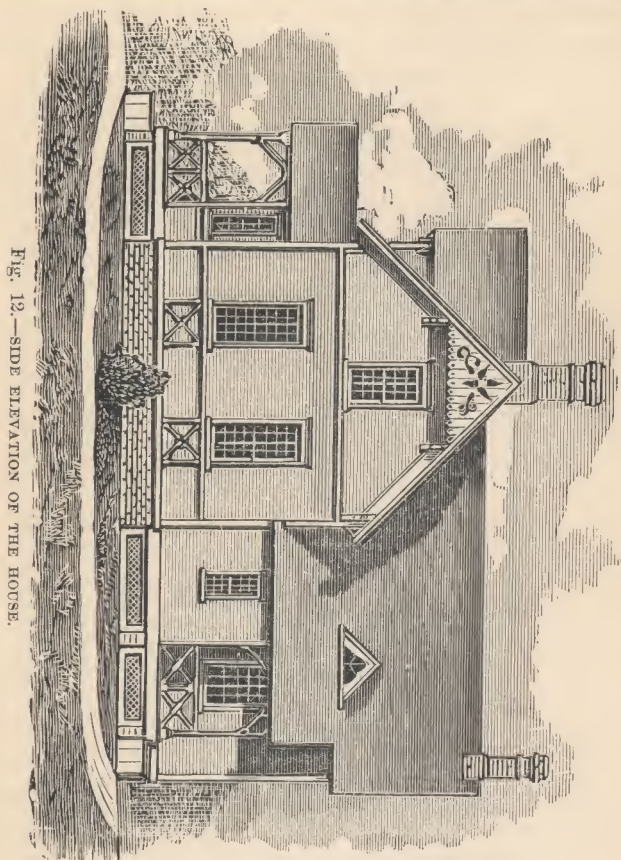


FIG. 12.—SIDE ELEVATION OF THE HOUSE.

named. Although such demands are perplexing, their number is so large that they can not be ignored. We have frequently attempted the task of solving this problem—putting to the test our many years' practical

experience in designing and building. Several such plans were published in our "House-Plans for Everybody," which were satisfactory in giving good accommodations and appearance—but usually with one room short of the desired number. The plans here given

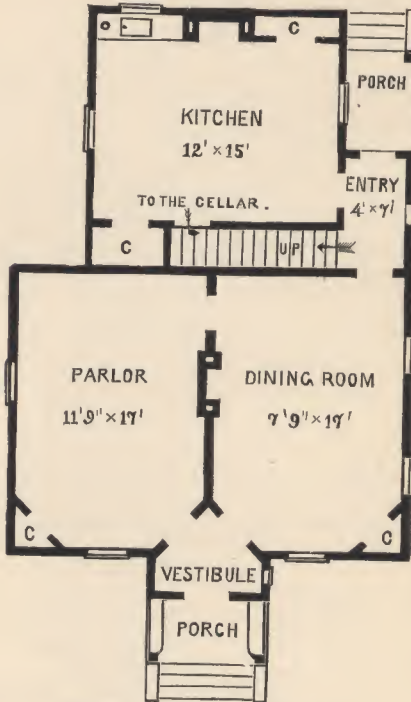


Fig. 13.—PLAN OF FIRST STORY.

will be found to excel those referred to in many respects, especially in the amount of accommodation, having seven convenient rooms, instead of the usual five, or at most six divisions.....EXTERIOR.—The front (fig. 11) has a breadth of 25 feet. The openings and other parts are symmetrically arranged and the whole tastefully

finished. The side elevation (fig. 12) shows the right hand side appearance of the house. The body is set at a convenient height from the ground, the foundation showing two feet above the grades. The outlines of the main building are sufficiently varied to be interesting. The

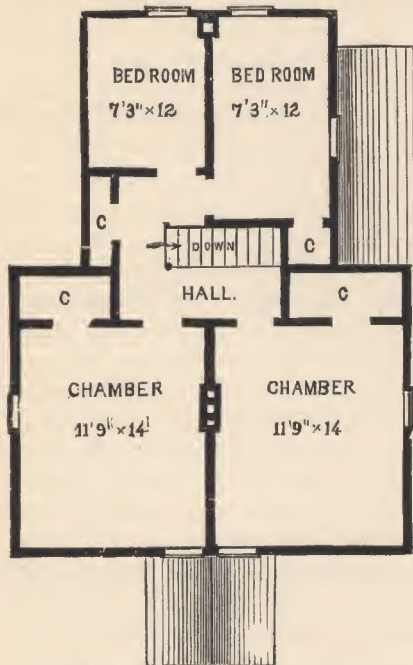


Fig. 14.—PLAN OF SECOND STORY.

roofs are set at an angle of 45° , giving them the prominence they deserve. The gables have a touch of ornamentation, a light chamfer work is put along the frieze, and under the windows, giving a finished appearance. The front and rear porches are of timber work, also chamfered. In some localities it may be desirable to have more shade in front than is afforded by this porch. In

such case a veranda may take its place, crossing the entire front of the house.....CELLAR—Hight, $6\frac{1}{2}$ feet. In the estimate of cost appended, allowance is made for a cellar under the wing only, which is sufficient in most cases. Others, especially farmers, wanting all the store-room possible, may extend the cellar under the entire building.—All the cellar-room should be excavated for the sake of good health, even if the room is not otherwise needed. There are two windows, an outside entrance, and a flight of plain stairs leading to the kitchen above.....FIRST STORY (fig. 13).—Hight of ceiling, 9 feet. The front entrance is from the porch to a vestibule, and through it to the two principal rooms. The vestibule has a small window at one side, towards which the front door swings in opening, and at the other side sufficient space is allowed for a hat-rack and stand. The parlor and dining-room are of equal dimensions, and similar in form, both being octagonal in front, and having a single chimney between them. The parlor has front and side windows, and one closet. The dining-room, intended as the family living-room, is conveniently arranged, having an open fire-place, three windows, a closet, and direct communication with the front vestibule and rear entry. The kitchen opens from the rear entry, is fair sized, and well lighted. It has a large fire-place, a pump and sink, two closets, and a stairway to the cellar. The rear entry opens from a covered porch, and is lighted by a small window, and from it a boxed or cottage flight of stairs lead to the second story. It will be observed that there are no superfluous halls, or other waste room, every inch of space being devoted to purposes of real utility.....SECOND STORY (fig. 14).—Hight of ceiling in the main part, 3 to 8 feet; in the wing, 2 to 7 feet. The roofs, being set at an angle of 45° , are unusually steep, giving increased head-room; then the partitions surrounding the hall are set to add to the hight of the

vertical walls where most important. There is a hall, four rooms, and four closets on this floor. The two front chambers have two windows each, and the chimney between them allows for the use of stoves, if required. The two rear rooms serve acceptably as bedrooms, the larger one having two windows, will accommodate two persons comfortably. The smaller room has a sash-door, through which light passes to the hall....CONSTRUCTION.—The foundations and chimneys are of brick-work. Frame of sawed spruce; siding of pine, “novelty pattern;” roofs of pine shingles; floors of tongued-and-grooved spruce; windows, four lights each; doors, pine, panelled; plastering, three-coat work; painting, two coats. The following estimate covers the cost of building by this plan. Those requiring the increased veranda, and cellar space suggested, should add \$50. In many localities, suitable stone and sand abound, which may be had for hauling. In such cases, the foundation may be of stone, which, together with the plastering, will cost much less than here calculated....ESTIMATE.—Cost of materials and labor :

38 yards excavation, at 25c. per yard.....	\$9.50
11,000 brick in foundation and chimney, at \$12 per M	132.00
500 yards plastering, at 20c. per yard.....	100.00
1,800 ft. timber, at \$15 per M.....	27.00
3 sills, 4×7 in. 20 ft. long.	1 ridge, 2×7 in. 25 ft. long.
3 sills, 4×7 in. 18 ft. long.	1 ridge, 2×7 in. 23 ft. long.
3 sills, 4×7 in. 17 ft. long.	48 beams, 2×6 in. 12 ft. long.
2 plates, 4×6 in. 25 ft. long.	24 beams, 2×7 in. 16 ft. long.
2 plates, 4×6 in. 17 ft. long	2 valleys, 2×7 in. 16 ft. long.
4 posts, 4×6 in. 13 ft. long.	
300 wall strips, at 12c. each.....	36.00
40 joists 3×4, at 15c. each.....	6.00
130 siding, 9½ in., at 28c. each	36.40
Cornice materials.....	15.00
300 shingling lath, at 6c. each.....	18.00
48 bunches shingles, at \$1.25 each.....	60.00
60 ft. tin valleys, at 8c. per ft.....	4.80
160 flooring (inside), 9 in. wide, at 28c. each	44.80
30 flooring (outside), 1½ in. wide, at 25c. each.....	7.50
2 cellar windows, at \$3 each	6.00
15 plain windows, at \$5.50 each.....	82.50
1 dormer window, at \$8; 21 doors, at \$5 each.....	113.00
2 porches, \$25; 2 stairs, \$16.....	41.00
5 mantel shelves, \$10; closet finish, \$6.....	16.00
Nails, pump, and sink, \$25; painting, \$75.....	100.00
Carting, \$15; carpenter's labor, \$125.....	140.00
Incidentals	4.56
Total cost of the building, complete.....	\$1,000.00

DESIGN IV.

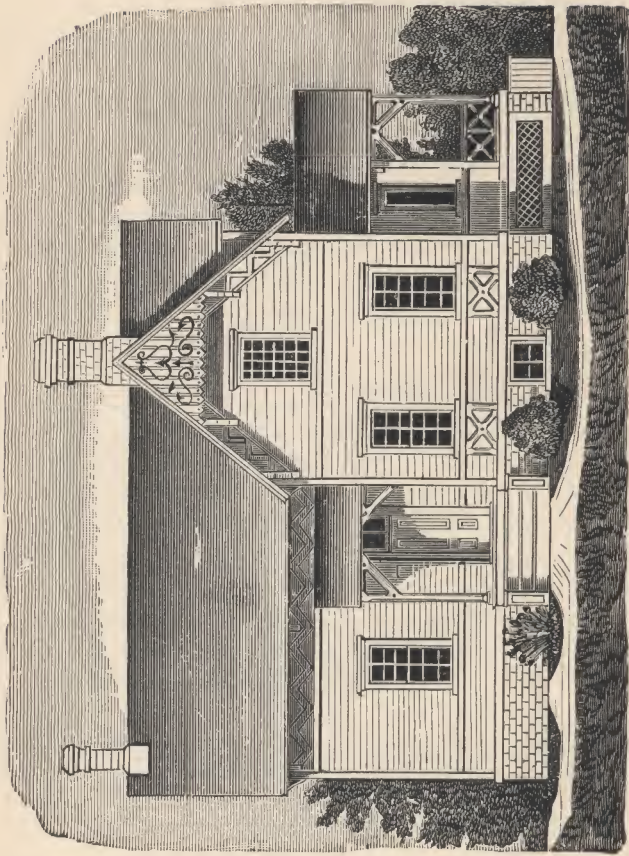


Fig. 15.—SIDE ELEVATION OF HOUSE.

A CONVENIENT COTTAGE, COSTING \$1,000.

These plans are for a dwelling similar in character to that immediately preceding. The divisions and general arrangements are changed, and the side entrances reversed, adapting it to locations having an opposite ap-

proach. EXTERIOR.—The front elevation is the same as Design III. The sides (fig. 15) are $34\frac{1}{2}$ feet long, of which 16 feet forms an end to the front, or main part. The rear or wing portion is carried up to the full height of the front, and has the same general finish. The openings and other parts are symmetrically arranged, and the

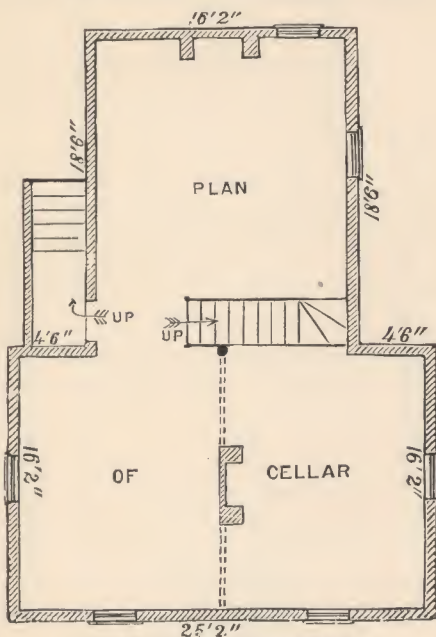


Fig. 16.—PLAN OF THE CELLAR.

whole tastefully finished. The principal roofs have a pitch of 14 inches to a foot, giving them unusual prominence. The chimneys pass through the ridges, where they appear to the best advantage. The two porches are sufficiently large to protect the entrances; the front one is furnished with permanent seats at either side. CELLAR (fig. 16).—Height $6\frac{1}{2}$ feet. In this climate it is neces-

sary for all trench foundation walls to extend into the earth from two to three feet to insure them against destruction from frost. If we set our building two feet above ground (and houses in the country should never be less



Fig. 17.—PLAN OF FIRST STORY.

for healthfulness), such foundations, including the trench footings below ground, will measure from four to five feet in height. For the small expense of the excavation, and a few additional bottom courses of rough masonry, all such foundation-walls may be utilized to better advantage and a valuable cellar obtained. With these facts

in mind, it will be seen that there is no real economy in trench foundations, especially where it is possible to have a cellar. In this plan the cellar extends under the entire building. Six small windows give light to all parts, and an outside door opens to the area under the rear porch.

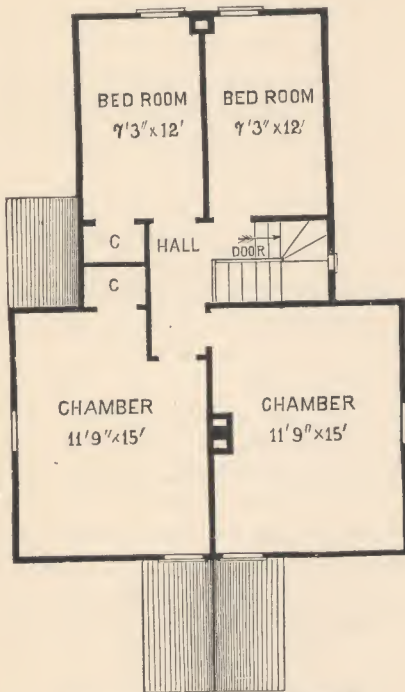


Fig. 18.—PLAN OF SECOND STORY.

A flight of stairs leads directly to the kitchen..... FIRST STORY (fig. 17).—Height of ceiling, nine feet. A parlor, a living-room, and kitchen, each of nearly equal dimensions, form the principal divisions of this story. The two front rooms are entered from the front porch

through the vestibule. Each has out-looks to the front and one side. The living-room is also accessible from the rear porch through the entry. A fire-place is put between the parlor and living-room, which may be made to face either way, and suited to the use of a fire-place heater. The latter may be so arranged as to communicate to each of the four rooms in the main part. The kitchen is a pleasant and convenient apartment. It has windows in three of its sides, a large open fire-place suited to the use of a range, two closets and a sink, and communication directly with the rear entry and the cellar stairs. The stairs to the second story lead from the entry, with platform and winders near the top.....SECOND STORY (fig. 18).—Hight of ceiling, $4\frac{1}{2}$ feet at the plates, and following the rafters to the full hight of 8 feet. There is a hall, two chambers, two bedrooms, and two closets in this story. Each room has good-sized windows, and adjoins chimney flues, giving opportunity for the use of stoves if required. The hall has a small window just above the stair platform, giving light to the hall above and the entry below. Inquiry is sometimes made as to “what constitutes the difference between a chamber and a bedroom.” The term “chambers” is applied to such sleeping apartments as will contain a full suit of chamber furniture, consisting usually of seven pieces; and “bedrooms” to such as have only space for a partial suit of perhaps three pieces.....CONSTRUCTION.—The foundations are of hard brick and mortar, eight inches thick. The frame of sawed timber; siding of “novelty” pattern pine; roofs, of sawed shingles; floors, of spruce T & G. The windows are glazed with second quality French glass; doors of pine, four-panelled and molded; plastering, hard finished. The casings inside, of white pine, and in the front rooms molded. The mantel shelves are of ash plank, supported on neat trusses. Painting, two coats.....ESTIMATED cost of this building :

75 yards excavation, at 25c. per yard	\$18.75
12,000 brick foundation and chimney, laid, \$12 per M.	144.00
475 yards plastering, at 20c. per yard	95.00
2,150 ft. timber, at \$15 per M.	32.25
2 sills, 4×7 in. 25 ft. long.	1 ridge, 2×7 in. 31 ft. long.
3 sills, 4×7 in. 16 ft. long.	1 ridge, 2×7 in. 25 ft. long.
2 sills, 4×7 in. 19 ft. long.	38 beams, 2×6 in. 16 ft. long.
2 plates, 4×6 in. 25 ft. long.	4 beams, 2×7 in. 12 ft. long.
2 plates, 4×6 in. 19 ft. long.	2 valleys, 2×7 in. 16 ft. long.
8 posts, 4×6 in. 14 ft. long.	
250 wall strips, at 12c. each	30.00
30 joists, at 15c. each	4.50
128 siding, 9 1/2 in., at 28c. each	35.84
Cornice materials.	15.00
300 shingling lath, at 6c. each	18.00
45 bunches shingles, at \$1.25 each	56.25
60 ft. tin valleys, at 8c. per ft.	4.80
152 flooring (inside), 9 in. wide, at 28c. each	42.56
30 flooring (outside), 4 1/2 in. wide, at 15c. each	4.50
6 cellar windows, at \$3 each (complete)	18.00
14 plain windows, at \$5.50 each (complete)	77.00
18 doors, at \$5 each	90.00
2 porches, \$25; 2 stairs, \$16	41.00
5 mantel shelves, \$10; closet finish, \$6	16.00
Nails, pump, and sink, \$25; painting, \$75	100.00
Carting, \$15; carpenters' labor, \$125	140.00
Incidentals	16.55
Total cost of the building, complete	\$1,000.00

DESIGN V.

A COMPLETE COTTAGE, COSTING \$1,100.

These plans are for an inexpensive and attractive seven-room dwelling. Several of these cottages have been erected in the manufacturing districts of the Eastern States, where they are regarded with special favor. One recently built at Bowery Bay, L. I., is much admired. They are well adapted to most other parts of the country, and will be found to be very convenient, and to contain sufficient room for an average-sized family. For economical reasons, but three rooms are usually appropriated to general use—a parlor, dining or sitting-room, and kitchen, the remainder being furnished as chambers. In such cases the apartment marked "dining-room" on the plan is used as a

chamber, making four chambers in all, and increasing the capacity of the house to accommodate a larger number of persons EXTERIOR.—Two elevations are given (figures 19 and 20). The foundations show $2\frac{1}{2}$ feet above ground, a good height for convenient entrances, besides giving opportunity for suitable outside windows from the cellar for light and ventilation. The outside openings and dressings are sufficiently varied to make the whole interesting and somewhat picturesque. The front entrance is of good width, and has a roof resting on cham-

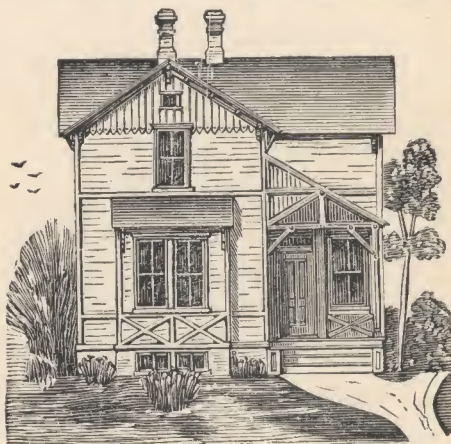


Fig. 19.—FRONT ELEVATION OF THE HOUSE.

fered columns and side railings of open work. A square-angled bay-window projects in front, with chamfered work, below the sashes. The cornices, gables, belt courses, etc., are tastefully arranged, giving opportunity for the proper distribution of shades in painting. CELLAR.—It is of the size and shape of the main house section, as shown in fig. 22. Its height is $6\frac{1}{2}$ feet; it has an outside entrance under the stoop, and is lighted by three windows. The kitchen is supported by piers, and the spaces between are enclosed with boarding

FIRST STORY (fig. 21).—Hight of ceiling 9 feet. The front entrance opens from the veranda to a vestibule, and from it to the parlor and dining-room. The parlor is pleasantly arranged with a bay-window in front, and single windows in two of its sides, giving views in three directions. The chimney is placed directly opposite the bay-window. Suitable spaces are allowed along the walls for the furniture usually required in such an apart-

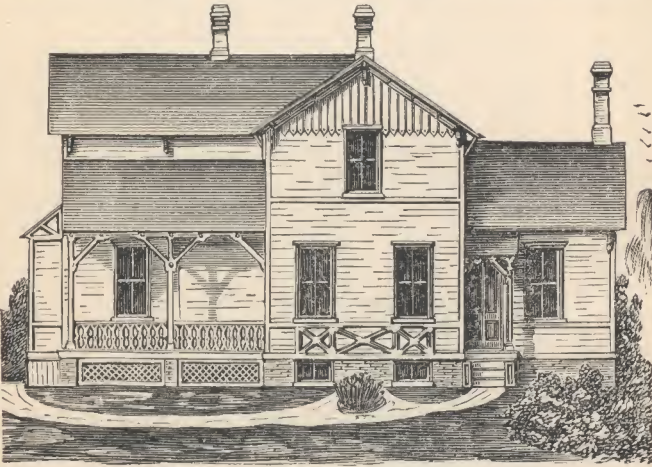


Fig. 20.—SIDE ELEVATION OF THE HOUSE.

ment. If desired, a door may be put in, opening a passage-way from the parlor to the dining-room. The sitting-room has windows in three of its sides, and doors leading to the dining-room, kitchen, and a closet. The dining-room has two windows on one side and connects with the kitchen, two closets, and the cellar stairs. (Should this room be made a chamber, as before suggested, then the space under the main stairs may be used as a closet). The kitchen has three windows, with outlooks in two directions, an open fire-place, a sink, door leading to the outside rear stoop, and a kitchen pantry;

the latter is of good size, has one window, and is thoroughly shelved. This "pantry" arrangement is a necessity in a New England house, as in such an apart-

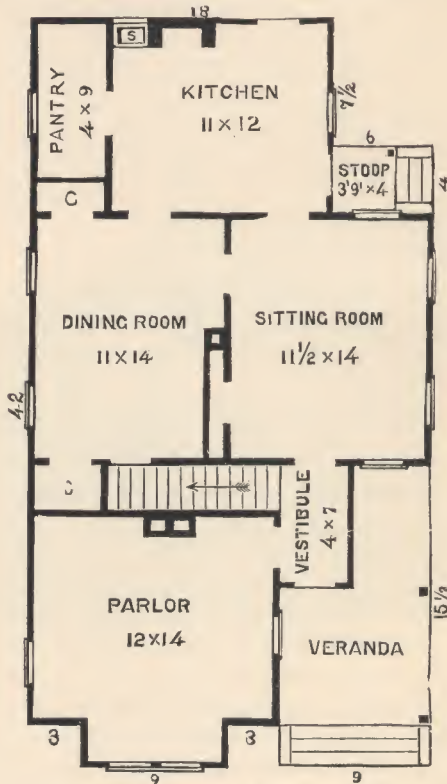


Fig. 21.—PLAN OF FIRST STORY.

ment the stores are kept, and most of the pastry work and preparations of food for the table are done. On one side just below the window a broad shelf is placed, extending the whole length; underneath and attached to this shelf are three drawers, 5 inches deep and 18

inches wide, for towels and such things. The remaining space is left for barrels, pails, etc. Above this shelf at each end of the window and across both ends, are shelves 10 inches wide, placed with convenient space between for crockery, spice boxes, etc. On the door or

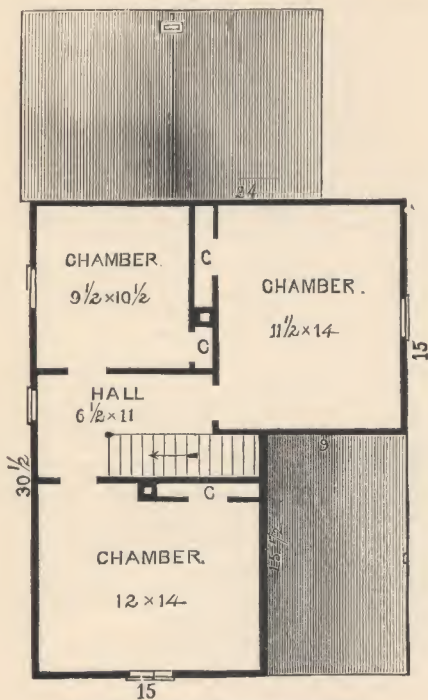


Fig. 22.—PLAN OF SECOND STORY.

opposite side, cleats and projecting pins are put for suspending various utensils used in cooking. To house-keepers who have once used such an apartment, it is ever after indispensable . . . SECOND STORY (fig. 22).—Height of ceiling 7 feet. The stairway ascends from the lower vestibule to a central hall, which is lighted by one small

window. There are three fair-sized chambers and three closets. Each room adjoins a chimney, giving opportunity for the use of stoves when required. . . . CONSTRUCTION.—The foundation is of broken field stone and mortar, neatly pointed on the outside. The frame is of sawed timber, siding of “novelty” pattern, gables of vertical boarding with their lower ends cut to pattern and battened. Roofs of shingles. The balance of the materials may be inferred from the following table of ESTIMATE for cost of materials and labor :

87 yards excavation, at 25c. per yard.	\$21.75
1,150 ft. of stone in foundations, at 8c. per ft.	92.00
3,000 brick in chimneys, at \$12 per M.	36.00
518 yards plastering, at 20c. per yard	103.60
2,138 ft. timber, at \$15 per M.	32.07
1 sill, 4×8 in. 155 ft. long. | 36 beams, 3×7 in. 15 ft. long.	
1 tier, 4×6 in. 131 ft. long. | 8 beams, 3×7 in. 12 ft. long.	
1 plate, 4×6 in. 101 ft. long. | 2 valleys, 3×7 in. 13 ft. long.	
1 ridge, 2×6 in. 62 ft. long	
300 wall strips, at 12c. each.	36.00
60 joists, at 15c. each	9.00
190 siding, 9½ in. at 28c. each	53.20
Cornice materials.	15.00
400 shingling lath, at 6c. each.	24.00
68 bunches shingles, at \$1.25 each	85.00
200 ft. tin valleys, gutters, and leaders, at 8c. per ft.	16.00
150 flooring (inside), 9½ in. wide, at 26c. each.	39.00
30 flooring (outside), 4½ in. wide, at 15c. each.	4.50
3 cellar windows (complete), at \$3 each.	9.00
17 plain windows (complete), at \$5 each.	85.00
18 doors (complete), at \$4 each.	72.00
Verandas and stoops (complete).	18.00
Stairs (complete), \$16; mantels (complete), \$5.	21.00
Closets (complete), \$6; pump, sink, and nails, \$25.	31.00
Painting, \$75; carting, \$15.	90.00
Carpenters' labor, not included above	125.00
Incidentals	81.88
Total cost of the building, complete.	\$1,100.00

DESIGN VI.

A FARM HOUSE, COSTING \$1,200.

These plans are partially based upon a sketch of a Wisconsin Farm House. It is suitable to most places in this latitude, and may properly front towards any desired di-

rection. The interior is adapted to the wants of an average-sized family. As is usual in this class of buildings, all halls, and expensive stairways are omitted, the entire space being devoted to the uses and convenience of the family....ELEVATION (fig. 23.)—The general outlines and style are such as predominate on the buildings of

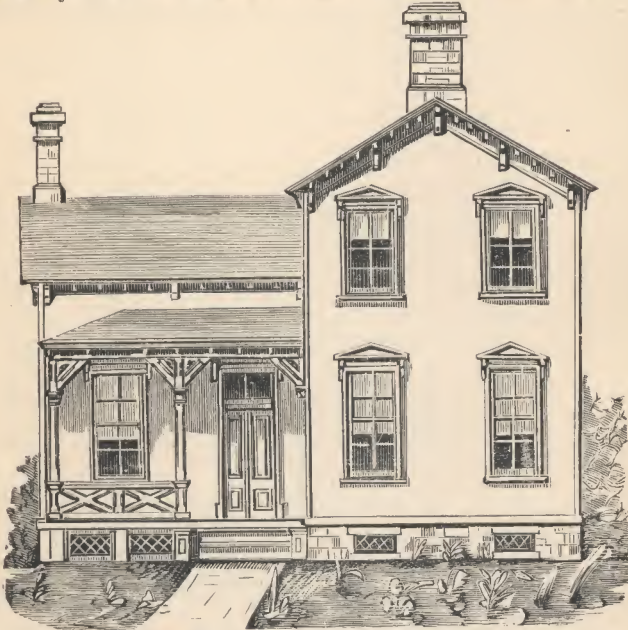


Fig. 23.—FRONT ELEVATION OF HOUSE.

thrifty farmers everywhere, and are suggestive of comfort and modest pretensions. The wood-work is set 2 feet above the grading, giving room for cellar windows and insuring dryness of the interior. A veranda is always pleasant and useful to protect the front entrance from sun and rain. If desired, a vestibule can be had by enclosing the space as shown by dotted lines (fig. 25), and a door could open from it directly to the parlor. The de-

tails of exterior finish are very simple, and arranged for good proportion.....CELLAR (fig. 24.)—Hight in clear, 6 feet 2 inches. It is lighted by five small windows, has an outside entrance from the rear, and stairs leading to the work-room of the first story....FIRST STORY, (fig. 25.)—Hight of ceilings, 9 feet. There are four good-sized rooms, three closets, and the necessary stairways. The parlor is square, has two front windows, and may have a side window at the right. It has an open fire-place and

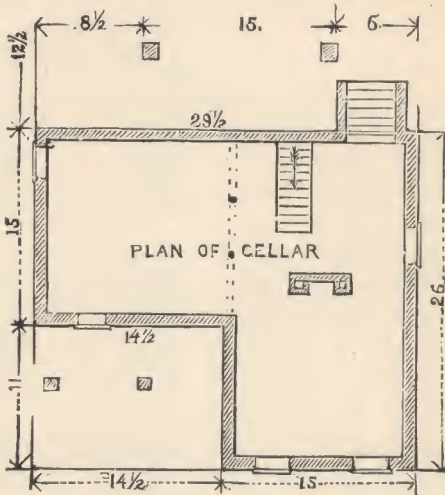


Fig. 24.—THE CELLAR.

a mantel. The kitchen is also square, with windows overlooking on three sides, an open fire-place suitable for a range, two closets, and a sink and pump. The work-room communicates directly with the kitchen and with the cellar under the main stairway, and has an outside door opening to the rear stoop. Some use this work-room as a kitchen and the other as a dining and family-room. In such case the sink and pump may be placed at *A*, and a stove at *B*, with smoke-pipe connecting with the chim-

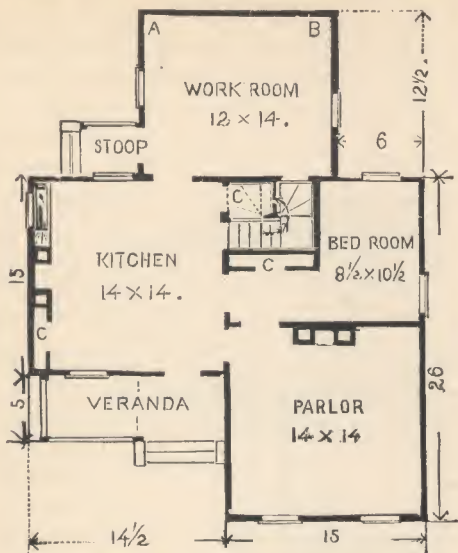


Fig. 25.—THE FIRST STORY.

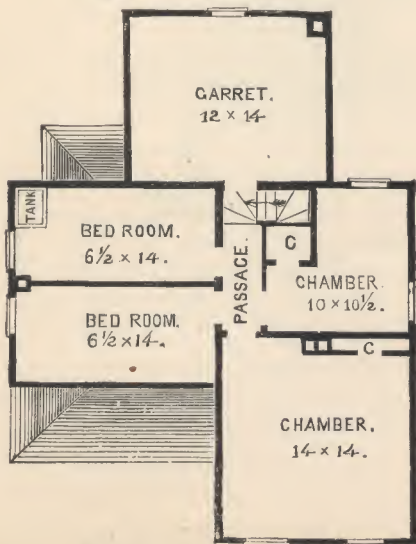


Fig. 26.—THE SECOND STORY.

ney flue from the second floor. The bedroom is convenient to either parlor or living-room, and has two windows and a closet. The stairs, both up and down,

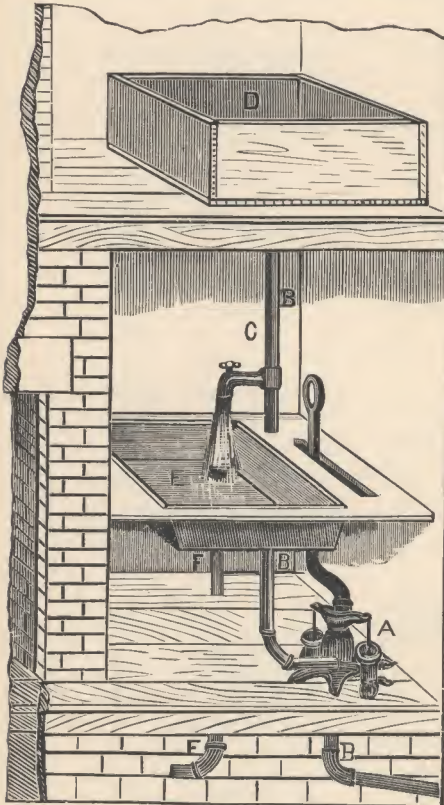


Fig. 27.—PLAN OF PLUMBING FOR A KITCHEN.

are arranged to occupy but little room, and have doors to each....

SECOND STORY (fig. 26.)—Hight

of ceilings in the main part 8 feet, in the side wing 3 to 6½ feet.

They may be carried higher if desired at small additional expense. There are two chambers, two closets, and a passage in the main part; two bedrooms in the side wing, and a garret in the rear wing, all opening from the stair landing. The chambers have side walls full

hight to the ceil-

ing; the bedrooms are "half-story" finished. The garret is floored, and has a small window in the rear, but is otherwise unfinished, being intended as a place for general storage.....CONSTRUCTION.—The excavations for the cellar are 4 feet deep. The foundation

and chimneys are of brick-work; frame of sawed timber; siding of "novelty pattern," which is preferable, but may be of other form of boards. Principal roofs are of shingles; veranda and porch-roofs of tin. Floors of 8-inch spruce, tongued and grooved. Windows in cellar have three-light sash hung with butts. Other windows have eight-light sash hung to weights. All doors are four-panelled. Casings for the first story are 5-inch reeded; for second story, 5-inch plain; base to match casings. Plastering of both stories, two full coats and white finished. Painting, two coats of best materials. A pump, sink, and tank are provided, connected with suitable pipes (see fig. 27). This practical method of plumbing may be used anywhere for country houses. It is quite free from complications, and the several parts may be obtained ready fitted, so that with pipe-tong and a screw-driver, any mechanic should be able to connect and set up the whole in working order. The cost is small. For this house it is estimated at \$40, but may be considerably lessened. The annual interest and depreciation would not be over \$5, while the saving of the house-keeper's strength would be many times that sum. *A* is a "ship pump," fastened to the kitchen floor, and afterwards enclosed by the wood-work fronting the space beneath the sink, so that when finished, no part is in sight except the handle, which extends upward, and is worked with a lateral motion through a slot made in the drain-board. Other forms of force-pumps may be selected.—*B, B, B*, 1-inch supply pipes leading from a cistern to the pump, and thence $\frac{3}{4}$ -inch pipe to the tank. *C* is a branch from the supply pipe leading to a point 10 inches above the sink, where a faucet is attached to regulate the flow of water as required. The tank, *D*, having capacity for 3 hogsheads of water, is placed in second story immediately above the pump. It is of plank, firmly made, and lined with sheet lead. *E*, iron sink, 16 by 24

inches. *F*, waste pipe ($1\frac{1}{4}$ -inch with trap) leading from sink to a drain outside. A hogshead might take the place of the tank to save expenses, but is less desirable. The above very simple, easily constructed and inexpensive plumbing arrangement should be included in the fittings of every kitchen, as one of the most valuable and sure helps possible to obtain for its cost. A few moments spent in filling the tank each day as needed, by some hand employed on the place, will give abundant supply of water for all ordinary uses, and greatly lessen the labor of house-work. An opening may be made through the kitchen ceiling below the tank, which will allow sufficient heat to pass up to protect the tank water from freezing in severe weather.

In the following estimate there are many items which may be reduced in some localities, as, for example, the foundations may be of stone, where easily obtained; and where lime and sand are cheap the plastering would be much less..... ESTIMATE :—Cost of materials and labor :

57 yards excavation, at 25c. per yard	\$14.25
12,000 brick (furnished and laid), at \$12 per M.....	144.00
30 ft. stone steps, at 12c. per ft.	3 00
475 yards plastering, at 25c. per yard.....	118.75
2,800 ft. timber (as follows), at \$15 per M.....	42.00
2 sills, 4×8 in. 26 ft. long.	5 posts, 4×7 in. 19 ft. long.
6 sills, 4×8 in. 15 ft. long.	2 posts, 4×6 in. 13 ft. long.
2 sills, 4×8 in. 13 ft. long.	2 plates, 4×6 in. 26 ft. long.
2 ties, 4×6 in. 26 ft. long.	3 plates, 4×6 in. 15 ft. long.
3 ties, 4×6 in. 15 ft. long.	2 plates, 4×6 in. 13 ft. long.
1 veranda, 3×7 in. 56 ft. long.	40 beams, 3×8 in. 15 ft. long.
	14 beams, 3×7 in. 13 ft. long.
100 joists, 3×4×13, at 15c. each.....	15.00
200 wall strips, 2×4×13, at 11c. each.....	22.00
230 novelty siding boards, at 28c. each.....	64.40
Cornice materials.....	20.00
300 shingling lath, at 6c. each	18.00
35 bunches shingles, at \$1.25 per bunch.....	43.75
150 flooring plank, at 28c. each.....	42.00
2 stairs (complete).....	15.00
5 cellar windows (complete), at \$3 each.....	15.00
16 main windows (complete), at \$7 each.....	112.00
19 doors (complete), at \$6 each.....	114.00
3 mantels and shelves (complete), at \$2 each.....	6.00
5 closet shelving (complete), at \$2 each.....	10.00
Veranda and stoop (complete).....	30.00
Pump, \$10; tank, \$15; pipes, \$8; sink, \$2; setting, \$5.....	40.00
Carpenter's labor, not included above	150.00
Painting, \$120; carting, \$15; incidentals, \$25.25.....	160.25
Total cost of the building, complete.....	\$1,260.00

DESIGN VII.



Fig. 28.—FRONT ELEVATION OF COTTAGE.

A COUNTRY COTTAGE, COSTING \$1,500.

These plans were made for the residence of a small, genteel family. The main part is two full stories, with the wing, one and one-half stories; the floor dimensions are sufficient to overcome any sense of crowding, and the whole is inexpensive. It will be found to contain more than an average amount of accommodation for a dwelling of its cost, and to be very conveniently arranged.....EXTERIOR (fig. 28).—The breadth of the front is 37 feet, and

the extreme depth, 30 feet. The foundation shows $2\frac{1}{2}$ feet above the ground. The enclosing is of horizontal boarding for the first story, and shingles above, with a belt course of dentil work between. Of course the whole may be covered with the ordinary narrow clap-boards, or the "novelty" siding. There are two pleasant verandas, front and rear. The bay-window projecting in front of the main part is square-sided, instead of the usual semi-octagonal form, and has balcony finish above CEL-

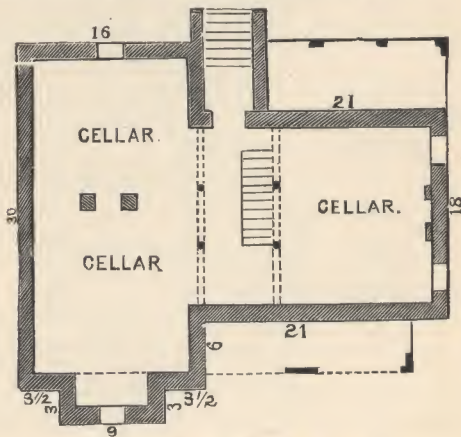


Fig. 29.—PLAN OF THE CELLAR.

LAR (fig. 29).—Hight of ceiling, $6\frac{1}{2}$ feet; extends under the whole building. Four small windows are arranged to furnish lights to all parts. The outside entrance is from the rear, and a stairway leads to the kitchen. . . . FIRST STORY (fig. 30).—Hight of ceiling, 10 feet. The hall is entered from both front and rear verandas, and doors lead to the parlor, sitting-room, and kitchen. The principal flight of stairs leads from this to the second story. The parlor is square, with a front bay-window or alcove, arched across on the inside. A plain window is placed at the center of one side. A mantel, not indicated

in the cut, is put opposite the bay-window. A door leads to the rear room, which may be used either as a sitting-room or a family bedroom. It has two windows, an open fire-place, and a closet. [This room may be used as a dining-room, though this would involve much carrying of dishes and food, and that too, across the main hall, unless a door be provided from the rear veranda to the sitting-room, and the veranda enclosed with glass for cold and stormy weather. The plan might be modified by cutting another room, for a library or bedroom, from

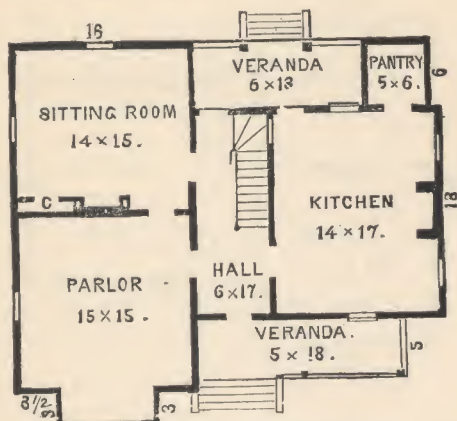


Fig. 30.—PLAN OF THE FIRST STORY.

the front of the kitchen, and let the kitchen occupy a portion of the rear part now provided, and also the rear veranda, and part of the rear of the main hall.]—The kitchen is intended as a general living-room, and is really the pleasantest room in the house. In this the family spend very much of their in-door life together, and special efforts are made to render this apartment as cheerful as possible, by giving it a favorable position with good outside views, and where it shall be well sheltered from storms, and shaded from the direct rays of the sun.

It is of fair size, with front, rear, and side windows, a large open fire-place, and a 5 by 6-foot pantry. A pump and sink (not shown on the plan) are placed between the fire-place and pantry, under the window. The stairs to the cellar are under the main flight. An outside door opens to the rear veranda. . . . SECOND STORY (fig. 31).—Hight of ceiling in the main house, 9 feet, and in the wing, 4 feet at the sides, and following the roof to the full hight of 8 feet. This story contains a hall, five rooms, and two closets. If desired, the rear wing room

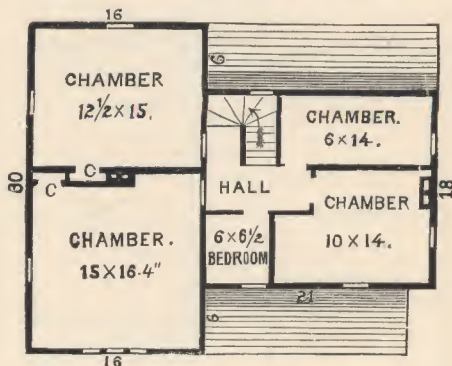


Fig. 31.—PLAN OF THE SECOND STORY.

(6 by 14 feet) may be furnished and used as a bath-room, with water pipes direct from the sink and pump below. . . . CONSTRUCTION. — The foundations are of broken stone and mortar, 18 inches thick and $6\frac{1}{2}$ feet high, $2\frac{1}{2}$ feet of which show above ground, all neatly pointed where exposed to sight on the outside. The walls may be of brick where stone are not at hand, at a small additional cost, say \$15 to \$20. Chimneys are of brick, laid in the usual manner. The kitchen fire-place is arched to the hight of 5 feet. The frame is of sawed spruce, of sizes shown in the estimate below, all thoroughly framed and secured with hard-wood pins. The entire sides of

the frame-work are sheathed with rough selected boarding of even thickness. The siding is of 6-inch clear pine clap-boards to the height of the belt course. Above this course the sides are shingled, or otherwise, as above stated. The roofs and verandas are shingle-covered. The valleys, gutters, and leaders are tinned. All exposed timber on the verandas is dressed and chamfered. Flooring for verandas of narrow white pine, and for the inside of wide spruce. Marble shelves are put in each of the principal rooms. Plastering: white hard-finish on two coats of brown mortar. Painting: two coats inside and out of any desired shade. . . . ESTIMATE.—It being impracticable to follow constantly changing prices, the items of cost are made at a uniform standard with those given in all the estimates in this work.

94 yards excavation, at 25c. per yard.	.....	\$23 50
50 perches stone foundation, at \$2.75 per perch.	.....	137.50
4,000 brick, in chimneys (laid), at \$12 per M.	.....	48.00
560 yards plastering, at 25c. per yard.	.....	140.00
3,000 ft. of timber, at \$15 per M.	.....	45.00
2 sills, 4×8 in. 30 ft. long.	2 ties, 4×6 in. 30 ft. long.	
2 sills, 4×8 in. 22 ft. long.	1 tie, 4×6 in. 18 ft. long.	
1 sill, 4×8 in. 18 ft. long.	2 ties, 4×6 in. 22 ft. long.	
2 sills, 4×8 in. 16 ft. long.	4 ties, 4×6 in. 16 ft. long.	
7 posts, 4×7 in. 20 ft. long.	2 plates, 4×6 in. 30 ft. long.	
2 posts, 4×7 in. 15 ft. long.	2 plates, 4×6 in. 22 ft. long.	
1 girder, 4×8 in. 18 ft. long.	23 beams, 3×8 in. 16 ft. long.	
1 veranda, 3×8 in. 88 ft. long.	18 beams, 3×8 in. 22 ft. long.	
1 ridge, 2×6 in. 62 ft. long.		
100 joists, at 15c. each.	.....	15.00
250 wall strips, at 12c. each.	.....	30.00
325 shingling lath, at 6c. each.	.....	19.50
55 bunches shingles, at \$1.25 each.	.....	68.75
250 sheating, at 25c. each.	.....	62.50
430 sidings, at 12c. each.	.....	51.60
Cornice materials.	.....	28.00
Veranda, finished.	.....	30.00
37 flooring boards for veranda, at 25c. each.	.....	9.25
185 flooring boards for inside, at 28c. each.	.....	51.80
4 windows, cellar (complete), at \$3 each.	.....	12.00
17 windows, plain (complete), at \$7 each.	.....	119.00
3 windows, dormer (complete), at \$10 each.	.....	30.00
17 doors (complete), at \$6 each.	.....	102.00
Stairs.	.....	35.00
240 ft. of valley, gutters, and leaders, at 8c. per ft.	.....	19.20
6 marble mantel shelves.	.....	22.00
Closet, finished, \$10; nails, 300 lbs., \$12.	.....	22.00
Painting, \$110; carting, \$15.	.....	125.00
Carpenter's labor, not included above.	.....	150.00
Pump, sink, and incidentals.	.....	103.40
Total cost of the building, complete.	.....	\$1,500.00

DESIGN VIII.

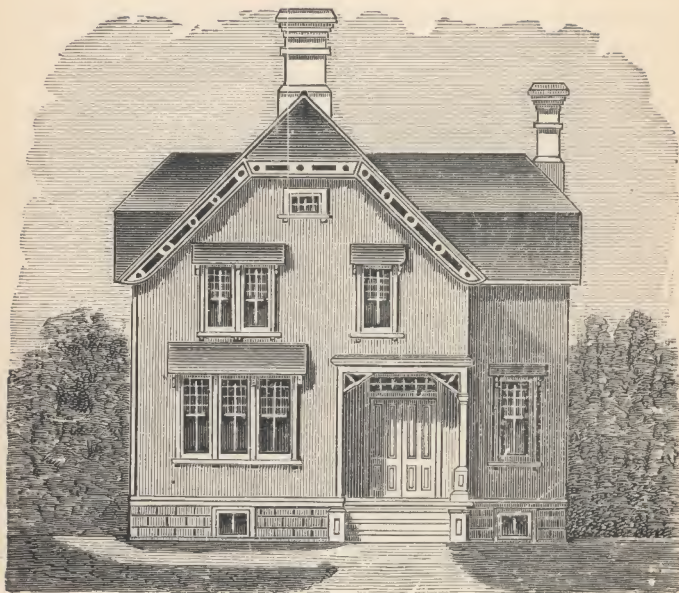


Fig. 32.—FRONT ELEVATION OF HOUSE.

A COUNTRY HOUSE, COSTING \$1,500.

These plans are for a substantial country dwelling, arranged to meet the requirements of farmers in moderate circumstances, and to give as much accommodation and convenience as can well be done for the sum named. This plan has many excellent features to commend it to the attention of such as are contemplating the erection of a complete and economical house....EXTERIOR (fig. 32).—The extreme ground measurements are 30 by 40 feet, giving a breadth becoming its relation as a farm house, with the surrounding grounds. The foundations show

two feet above the earth grades. Unless the site is already very high, the earth taken from the excavations should be used in raising the surface of the grounds at least one foot immediately surrounding the foundations, so as to turn away all water, and also to give increased height and better appearance to the whole build-

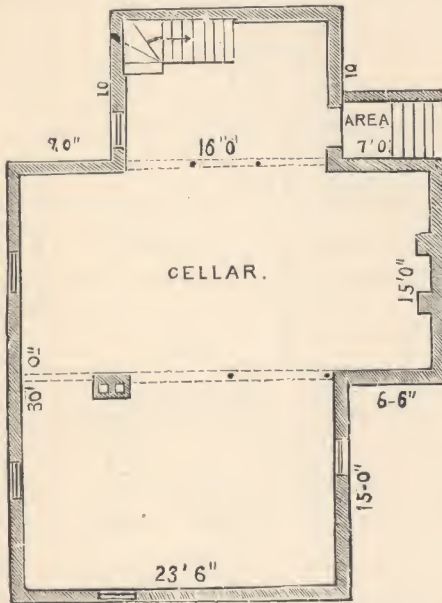


Fig. 33.—THE CELLAR.

ing. The simple methods of construction shown in the treatment of the porches, windows, cornices, gables, roofs, and chimneys, give the whole a rustic appearance quite in accord with its domestic intent.....CELLAR (fig. 33).—Height $6\frac{1}{2}$ feet; dimensions same as first story, giving abundant cellar room, which may be divided into separate apartments for vegetables and other uses. If there is a porous or sandy bottom, and proper ventila-

tion, it will be sufficiently cool and dry for keeping fruit with good success. Six small windows, built in the walls, afford light and ventilation to all parts. An opening in one of the flues of each chimney will carry off unwholesome vapors when the windows are closed in winter. There is an outside entrance under

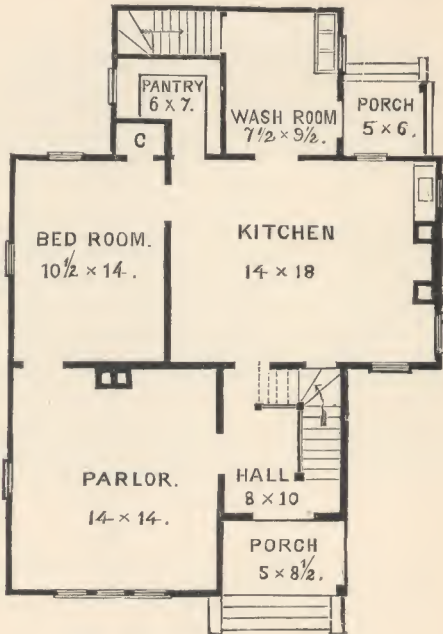


Fig. 34.—PLAN OF FIRST STORY.

the rear porch, and an inside stairway leading to the rear entry on the first floor, with a door at the top. This location of cellar stairs prevents cellar odors and dust from coming by them directly into the body of the house.....FIRST STORY (fig 34).—Hight of ceilings, 10 feet. The front entrance is from a porch through

double doors, to a hall which communicates with the parlor and kitchen, and contains the main stairs. The parlor is square floored, with windows in two sides, and a marble shelf. The kitchen is the largest apartment, and intended as the family living-room. It is convenient to a pantry, closet, and rear entrance. The pantry is thoroughly shelved, and has a small window. The closet

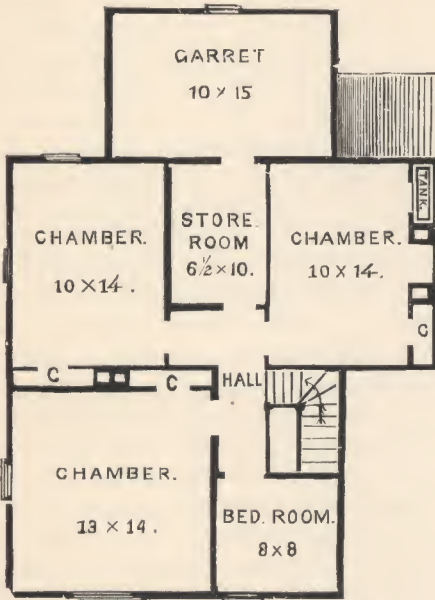


Fig. 35.—PLAN OF SECOND STORY.

is formed in the space under the front stairs, and is shelved. The rear entrance is from a covered porch to the entry, the latter is sufficiently large to contain the wash-tubs, and relieve the kitchen of much of the heavy work. The bedroom is conveniently arranged, and may be entered from the parlor or kitchen. It has two win-

dows, a closet, and a marble shelf....**SECOND STORY** (fig. 35).—Height in main house, 6 feet at the plates, following the rafters to the full height of 8 feet. The divisions embrace a hall, four sleeping-rooms, four closets, and a store-room and garret. The chambers are commodious, have windows in two sides of each, and adjoin chimneys, giving opportunity for stoves when required. The flues of the kitchen chimney are divided in the second story, admitting a window between, and are brought together over an arch above the window. A tank for roof water shown in a closet adjoining the right-hand chimney fills half of its height; the balance of the space may be used as a closet. The store-room might be used as a bedroom if required, and receive light from the rear window through a sash door.**CONSTRUCTION.**—The excavations are made $3\frac{1}{2}$ feet deep. The foundations and chimneys are of hard bricks and good mortar (or stone may be used where cheaper for the foundations). Frame of sawed timber, as indicated in the estimate. Siding of wide “novelty” pattern. Principal cornices of dressed pine, projecting 18 inches, and having verge boards in the gables of open panel-work. Roofs are set at an angle of 45° , and covered with pine shingles laid on $1\frac{1}{4}$ by 2-inch shingling lath. Floors of tongued and grooved spruce, 8 inches wide. Plastering, white finish on two coats of brown mortar. Stairs of pine. The principal flight having a newel, rail, and balusters of black-walnut. The principal windows have lights as shown, in $1\frac{3}{8}$ inch sash hung to balance weights. Cellar sash two lights hung with butts to swing upwards. Doors are panelled and molded, and have hard-wood saddles. The plumbing is similar to that described and illustrated on page 38. Marble shelves, with appropriate stucco trusses, are set in the parlor and each chamber. Painting inside and out, two coats of best lead and oil....**ESTIMATE.**—Cost of materials and labor:

144 yards excavation, at 25c. per yard.....	\$36.00
14,000 bricks, foundations and chimneys, at \$12 per M.....	168.00
24 ft. stone steps, at 12c. per ft.....	2.88
600 yards plastering, at 25c. per yard.....	150.00
4,000 ft. timber (as follows), at \$15 per M.....	60.00
Sills, 4×8 in., 44 ft. long.	16 rafters, 3×4 in., 13 ft. long.
9 posts, 4×7 in., 17 ft. long.	2 valleys, 3×8 in., 16 ft. long.
Plates, 4×6 in., 90 ft. long.	14 beams, 3×8 in., 24 ft. long.
Girts, 4×6 in., 38 ft. long.	30 beams, 3×8 in., 15 ft. long.
2 posts, 4×6 in., 10 ft. long.	5 beams, 3×8 in., 15 ft. long.
Ties, 4×6 in., 175 ft. long.	Porch, 3×7 in., 24 ft. long.
20 rafters, 3×4 in., 18 ft. long.	Ridges, 2×8 in., 52 ft. long.
100 joists, at 15c. each.....	15.00
250 wall strips, at 11c. each.....	27.50
235 siding, at 28c. each.....	65.80
Cornice materials.....	30.00
300 shingling lath, at 6c. each.....	18.00
45 bunches shingles, at \$1.25 per bunch.....	56.25
200 ft. tin (in valleys, gutters, and leaders), at 10c. per ft.....	20.00
200 flooring (inside), at 28c. each.....	56.00
18 flooring (outside), at 25c. each.....	4.50
2 stairs (complete).....	40.00
2 porches details (complete).....	20.00
5 cellar windows (complete), at \$3 each.....	15.00
20 plain windows (complete), at \$7 each.....	140.00
21 doors (complete), at \$6 each.....	126.00
5 marble shelves, at \$4 each.....	20.00
Closet finish (complete).....	15.00
Plumbing, \$40; carting, \$20.....	60.00
Carpenter's labor not included above.....	175.00
Painting, \$175; Incidentals, \$5.07.....	180.07
Total cost of the building, complete.....	\$1,500.00

DESIGN IX.

A COUNTRY COTTAGE, COSTING \$1,600.

These plans are suitable for a country dwelling anywhere, but are especially adapted to the Middle and Southern States. They contain convenient accommodation for a family of moderate size.... EXTERIOR.—Two elevations are given.. The front (fig. 36), has an extreme breadth of 28 feet, with an octagonal projection in the middle, which is carried up the full height of the main building. It is surrounded on its five exposed sides with a pleasant veranda and vestibule. The roof of the octagonal part is surmounted with a gabled "louver," giving light and venti-

lation to the roof story. The steps leading to the front veranda are made to conform to one of its angles, which will be appreciated by the gardener as giving opportunity for an agreeable display of taste in laying out the grounds and paths....The side elevation (fig. 37), shows a portion of the foundation, which extends two feet above ground. The arrangement of the balcony, rear entrance, and gable

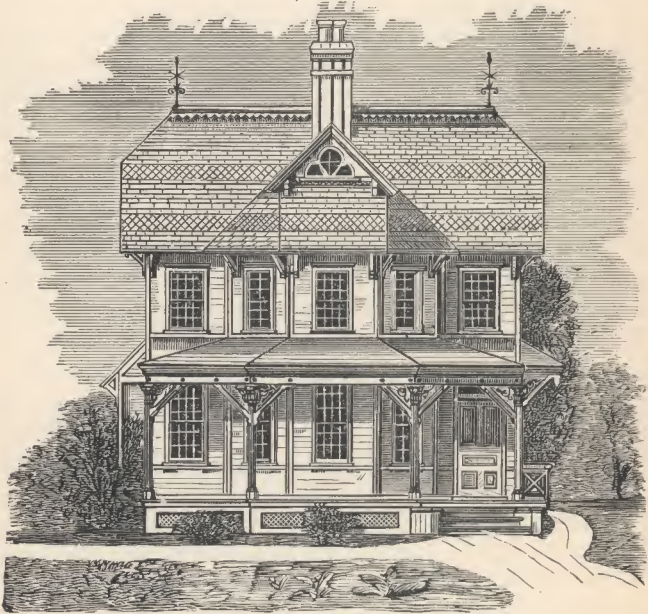


Fig. 36.—FRONT ELEVATION OF THE HOUSE.

finish, is also given. The opposite end, or the side of the building, will appear similar to this, except that a closet takes the places of the balcony, and two windows are placed in the first story instead of only one.....CELLAR (fig. 39). Hight, $6\frac{1}{2}$ feet. Its interior dimensions are 15 by 25 feet, giving sufficient cellar space for ordinary use. It is provided with three windows, an outside entrance, and

stairs leading to the rear entry of the first story....FIRST STORY (fig. 38).—Hight of ceiling 9 feet. The principal entrance is from the veranda to a good-sized vestibule, and through it to the hall and parlor. The hall is unusually large for buildings of this class, and is designed

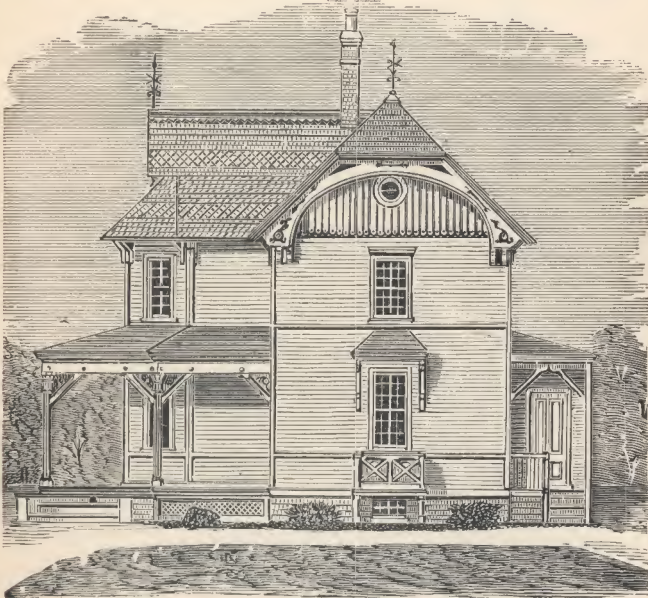


Fig. 37.—SIDE ELEVATION OF THE HOUSE.

to be used principally as a sitting-room. It is accessible from both front and rear outside entrances, and adjoins the parlor and dining-room. The stairs have a platform near the bottom, and are ceiled up closely below the hand rail. The parlor is octagonal, and provided with three windows and a marble mantel. The living-room is the largest apartment, and is conveniently arranged. It has four windows, giving views in three directions; it contains a pump and sink, and has a pantry and a closet ad-

joining.....SECOND STORY (fig. 40).—Hight of ceiling, 8 feet. There are three good-sized chambers, three closets,

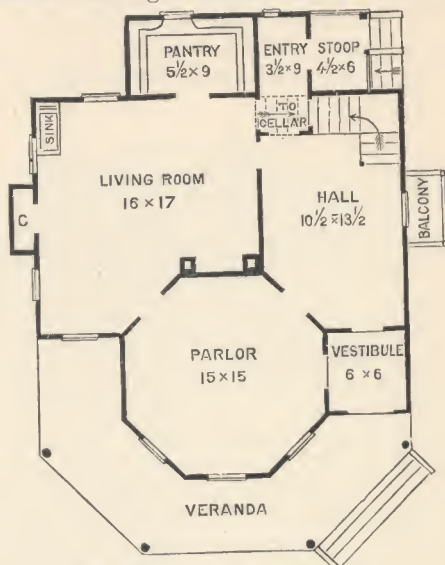


Fig. 38.—PLAN OF FIRST STORY.

and a hall in this story. There are nine full-sized windows, admitting an abundant supply of sunlight, and providing for thorough ventilation....GARRET.—The roof story is floored with thickened boarding, but otherwise unfinished, to be used for storage only. It is reached by a step-ladder through an opening made in the ceiling of the second story hall, or if desired for servants' bedrooms. A stairway may be made to it over the main flight by reducing the length of the right-hand chamber $2\frac{1}{2}$ feet....

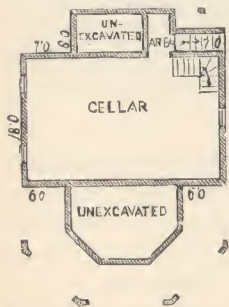


Fig. 39.—PLAN OF CELLAR.

CONSTRUCTION.—The foundations are of broken stone and mortar. The frame is of sawed timber; siding of nine-inch pine. The roofs of the main part are of pine shingles, a part of which are cut to pattern and laid together in courses, showing alternate belts of plain and figured work. The veranda, balcony, and rear extension roofs, are covered with tin. The chimney is carried up

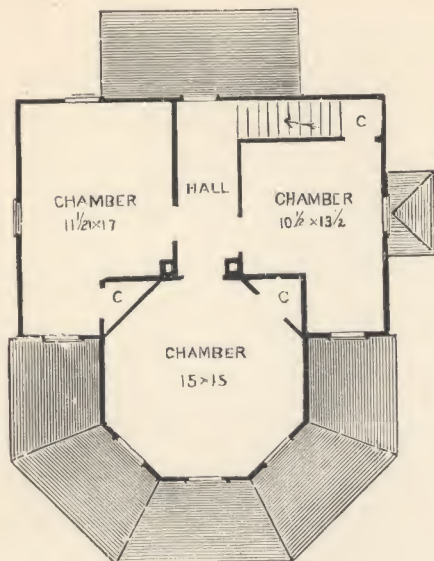


Fig. 40.—PLAN OF SECOND STORY.

with two separate flues, which are connected by a breastwork in the first story, separating in the second story, then joining again above, and passing through the roof as one chimney. The veranda is ceiled with narrow boarding overhead; the columns are octagonal, and furnished with molded bases, and chamfered spandrels. The balance of materials may be understood from a study of the estimates appended, in which provision is made for the

thorough completion of the dwelling, ready for use....

ESTIMATE.—Cost of materials and labor :

60 yards excavation, at 25c. per yard.....	\$15.00
1,200 ft. stone foundations (complete), at 8c. per ft.....	96.00
3,000 brick in chimneys (complete), at \$12 per M.....	36.00
575 yards plastering (complete), at 25c. per yard.....	143.75
4,000 ft. timber, at \$15 per M.....	60.00
1 sill, 4×8 in. 152 ft. long.	Ridges, 2×7 in. 36 ft. long.
1 tie, 4×6 in. 175 ft. long.	26 beams, 3×8 in. 18 ft. long.
1 plate, 4×6 in. 84 ft. long.	16 beams, 3×8 in. 11 ft. long.
10 posts, 4×7 in. 20 ft. long.	14 beams, 3×7 in. 18 ft. long.
Veranda, 3×7 in. 200 ft. long.	8 beams, 3×8 in. 11 ft. long.
100 joists, at 15c. each.....	15.00
250 wall strips, at 12c. each.....	30.00
175 siding, 9 in., at 28c. each.....	49.00
Cornice materials.....	30.00
200 shingling lath, at 6c. each.....	12.00
35 bunches shingles, at \$1 25 per bunch.....	43.75
50 hemlock boards, at 15c. each.....	7.50
6 squares tin valleys, gutters, at \$8 per square.....	48.00
155 flooring (inside), 9 in. wide, at 28c. each.....	43.40
70 garret flooring, 10 in. wide, at 15c. each.....	10.50
75 flooring (outside), 4 $\frac{1}{2}$ in. wide, at 15c. each.....	11.25
3 cellar windows (complete), at \$3 each.....	9.00
18 plain windows (complete), at \$7 each.....	126.00
3 gable vents (complete), at \$2 each.....	6.00
19 doors (complete), at \$8 each.....	152.00
2 stairs, \$30 and \$10: veranda and stoop, finished, \$50; closet finish, \$12.....	102.00
1 mantel and 4 shelves.....	30.00
Nails, pump, and sink, and the roof ornaments.....	40.00
Painting, \$130; carting, \$25.....	155.00
Carpenters' labor, \$275; sundry incidentals, \$53.85.....	328.85
Total cost of the building, complete.....	\$1,600.00

DESIGN X.

A SWISS COTTAGE, COSTING \$1,600.

These plans are for a pleasant rural country residence, Several having been erected from them in Westchester Co., N. Y., and elsewhere. The site selected in one instance is fairly indicated in the cuts, and was somewhat distant from the main road, upon undulatory, wooded, and otherwise picturesque ground. . . . EXTERIOR (fig. 41). This elevation shows the front facing the main road. The general confirmation of this building to the declivity of the grounds, together with its rustic details of finish, give

it a Swiss-like appearance, in agreeable accord with the surroundings. It will be seen that the grounds at the right are one story higher than those on the left. The principal walk or drives are along the higher grounds at the right, continuous to the veranda, from which the main entrance is conveniently reached. . . . Figure 42 shows the side elevation. The walled or basement story

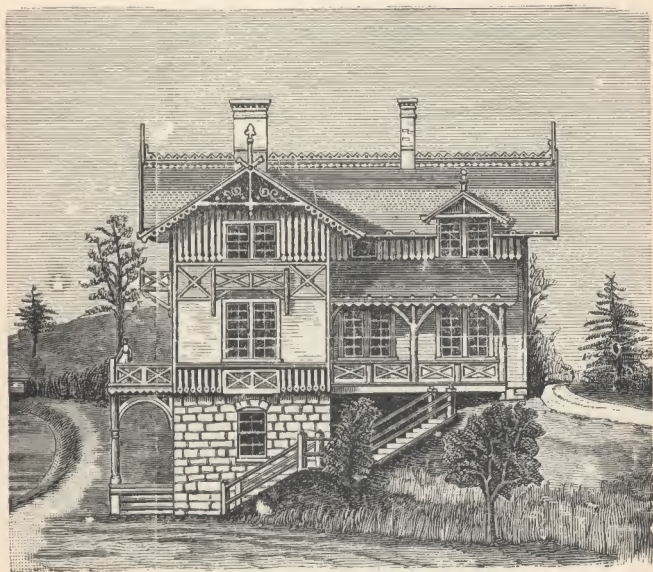


Fig. 41.—FRONT ELEVATION OF HOUSE.

appears full high above ground, giving increased prominence to this part of the building. . . . BASEMENT (fig. 43). Height of ceiling in finished parts, $8\frac{1}{2}$ feet; cellar, 7 feet. This story contains a dining-room, kitchen, hall, pantry, cellar, and closet. The two principal rooms have doors leading directly to the porch, and to the hall, which contains a stairway leading to the floor above. The kitchen and dining-rooms are well lighted, and have

open fire-places. The cellar is cemented on the bottom, all other parts are floored. . . . **FIRST STORY** (fig. 44). Hight of principal building, 10 feet. Bath-room, 7 feet. The divisions include a hall, parlor, sitting-room, library, and bath-room. The sitting-room, and library, also have a closet each. The main hall has double entrance doors and connects by doors with each of the four

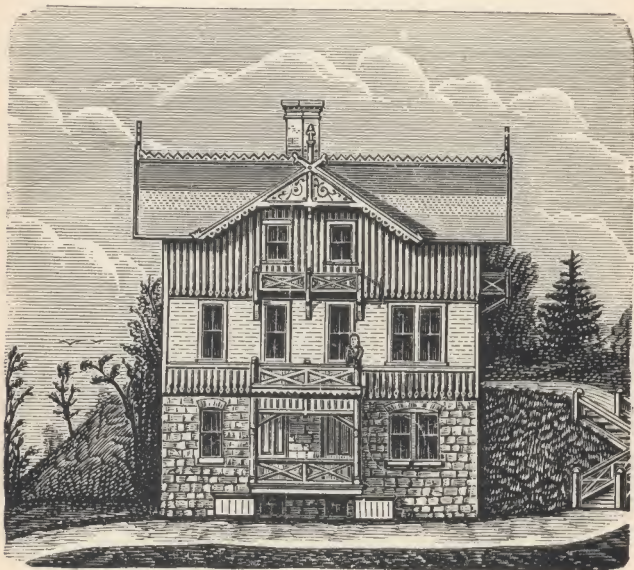


Fig. 42.—SIDE ELEVATION OF HOUSE.

apartments. **SECOND STORY** (fig. 45). Hight, 9 feet. There is a hall, two chambers, three bedrooms, and three closets on this floor. . . . **CONSTRUCTION.**—The foundations are of broken stone, laid in mortar, 18 inches thick, extending in the earth below the reach of frost, and neatly pointed where exposed to sight. The beams for the basement floor are of 3 by 8-inch timber, with a 4 by 8-inch girder supporting their centers, and leaving

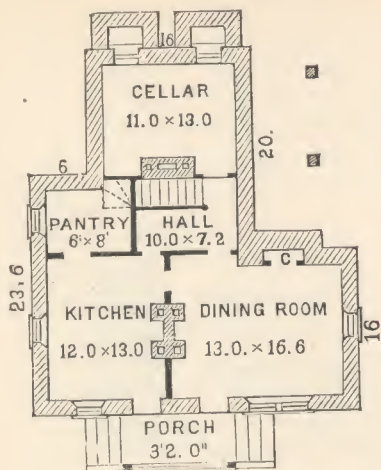


Fig. 43.—PLAN OF BASEMENT.

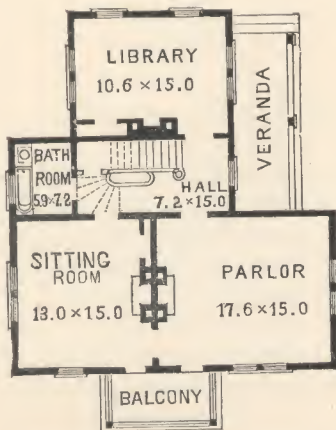


Fig. 44.—PLAN OF FIRST STORY.

a clear space of from 6 to 20 inches below them for the passage and circulation of air under the porch, as shown in fig. 42. The cellar has two steps of masonry upward from the hall. The upper frame is of square, sawed timber, thoroughly framed and secured. The horizontal siding is of 6-inch clapboards; the vertical of 9 $\frac{1}{2}$ -inch tongued-and-grooved ceiling boards, battened; all on

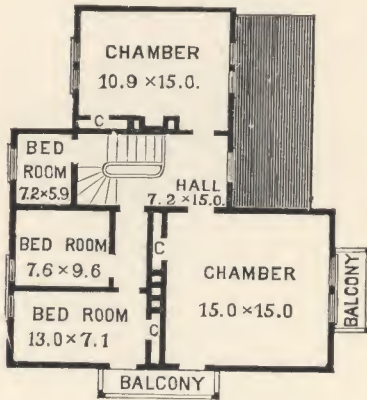


Fig. 45.—PLAN OF SECOND STORY.

sheathing felt. The roofs are of slate, with tin valleys, gutters, and leaders. Windows have lights as shown, with 1 $\frac{1}{2}$ -inch sash hung to weights. Doors of pine, panelled and molded. Stairs, pine, with black walnut newel, rail, and balusters. Closets shelved and hooked in the usual manner. All wood work usually painted has two coats of paint. The appended estimate will furnish additional information. It will be seen that the cost of plumbing is here omitted, as the supply of water in most cases comes from a spring or well on the farm: ESTIMATED cost of material and labor:

142 yards excavation, at 20c. per yard.....		\$28.40
1,800 ft. stone work (complete), at 5c. per ft.....		108.00
4,000 brick in chimneys (complete), at \$12 per M.....		48.00
759 yards plastering (complete), at 20c. per yard.....		151.80
5,000 ft. timber, at \$20 per M.....		100.00
2 sills, 4×8 in. 32 ft. long.	2 ties, 4×6 in. 32 ft. long.	
2 sills, 4×8 in. 20 ft. long.	2 ties, 4×6 in. 20 ft. long.	
1 sill, 4×8 in. 24 ft. long.	6 ties, 4×6 in. 16 ft. long.	
2 sills, 4×8 in. 16 ft. long.	2 plates, 4×6 in. 32 ft. long.	
1 sill, 4×8 in. 6 ft. long.	2 plates, 4×6 in. 20 ft. long.	
9 posts, 4×7 in. 20 ft. long.	75 beams, 3×8 in. 16 ft. long.	
1 post, 4×7 in. 16 ft. long.	56 rafters, 3×4 in. 13 ft. long.	
1 ridge, 3×8 in. 68 ft. long	1 veranda, 3×8 in. 60 ft. long.	
24 joists, at 15c. each.....		3.60
360 wall strips, at 10c. each.....		36.00
130 horizontal siding (6-inch), at 15c. each.....		19.50
150 vertical siding (9-inch), at 27c. each.....		40.50
150 battens, at 4c. each.....		6.00
Cornice materials.....		30.00
164 hemlock boards, at 15c. each.....		24.60
16½ square slate, at \$8 each.....		132.00
330 ft. tin gutters, valleys, and leaders, at 8c. per ft.....		26.40
480 flooring (4½ inches), at 12c. each.....		57.60
5 basement windows (complete), at \$5 each.....		25.00
3 cellar windows (complete), at \$2 each.....		6.00
27 plain windows (complete), at \$6 each.....		162.00
2 stairs (complete).....		35.00
25 doors (complete), at \$7 each.....		175.00
Pantry and closets, finished (complete).....		15.00
Carting.....		25.00
Painting (complete).....		100.00
Carpenter's labor, not included above.....		200.00
Incidentals.....		44.60
Total cost of the building, complete.....		\$1,600.00

DESIGN XI.

A COTTAGE FOR THE COUNTRY, COSTING \$1,800.

These plans are for a roomy and home-like country dwelling with ample accommodations for a family of average size, and containing some of the most essential of modern improvements....EXTERIOR (figure 46). — The ground measurements are 36 by 41 feet—giving a desirable breadth of base each way. The outlines are irregular, and broken with sharp, well-defined angles, which impart an appropriate rustic appearance, that would be picturesque on a level, monotonous prairie, while it would harmonize suitably with rugged surroundings. There are

two pleasant verandas—one in front, and another in the rear of the living-room. In some localities it would be desirable to extend the front and rear windows of the living-room to the floor, making both verandas directly



Fig. 46.—FRONT ELEVATION OF COTTAGE.

accessible from that apartment....CELLAR (fig. 47).—Hight $6\frac{1}{2}$ feet, and of the same size as the main house, giving abundant room for ordinary purposes. If desired, a solid partition may be made in line with the girder (shown by dotted lines), thoroughly dividing the space at little cost;—and giving a “warm cellar” on one side, and a “cold” one on the other. There are six small windows,

admitting light from three directions, an outside entrance at the rear is enclosed with hatchway doors. Should more cellar be required, it may be extended under the kitchen while building, at an additional cost of twenty dollars.... FIRST STORY (fig. 48).—Hight of ceilings $9\frac{1}{2}$ feet. The front entrance leads from the veranda to the main hall, which is centrally located. It also communi-

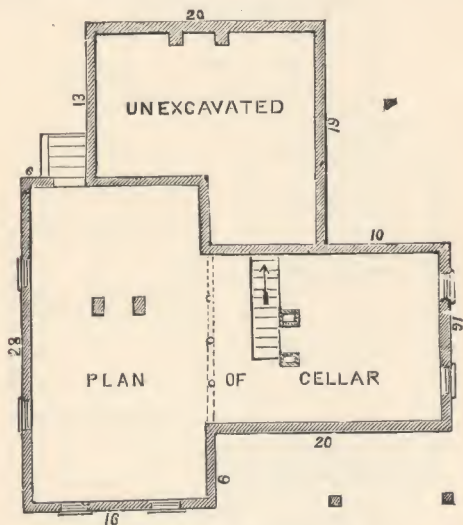


Fig. 47.—PLAN OF THE CELLAR.

cates directly with the four principal rooms on this floor, and contains the main stairs ascending to the second story. All of the rooms are conveniently situated, and have the necessary windows to admit plenty of light and air. The dining-room and kitchen have each out-looks in three directions, and are arranged to communicate with each other through the pantry, which is thoroughly shelved, and has a narrow window. A door opens from this pantry directly to the

cellar stairs, which are under the main stairs. Many prefer such communication between the pantry and cellar for convenience. A large proportion of the stores required for the table, come directly from the shelves and safes in the cellar, and by this plan many steps are saved. The kitchen is conveniently arranged. An outside door opens from the rear veranda. A good sized pantry, *C*, an open

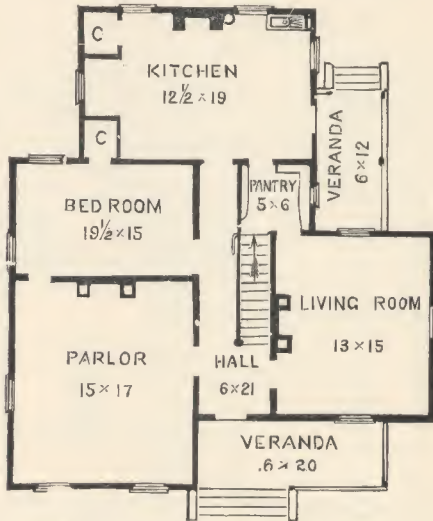


Fig. 48.—PLAN OF THE FIRST STORY.

fire place, a pump, sink, and a closet under the sink, are provided. The fire-place is suited to the use of a range with waterbacks, placing the boiler at the side of the chimney if desired....SECOND STORY (fig. 49).—Hight in the main house 5 feet at the plates, and following the rafter to the full hight of 8 feet; hight in the wing 2 feet at the plates—to $6\frac{1}{2}$ feet in the center. The roofs are unusually steep, so that a person of ordinary hight will be able to stand erect within six inches of the sides of the principal rooms at their lowest point, making them

as usable for chambers, as if with full height or level ceilings. Each of the principal chambers have closets adjoining the chimneys. One chamber suitable for a servant's room, a bath-room, and a store-room, are placed over the kitchen. The bath-room is furnished with a water-closet and bath-tub. An opening with register is placed in the floor at *B*, admitting warm air from the kitchen ceiling.....CONSTRUCTION.—The foundations are

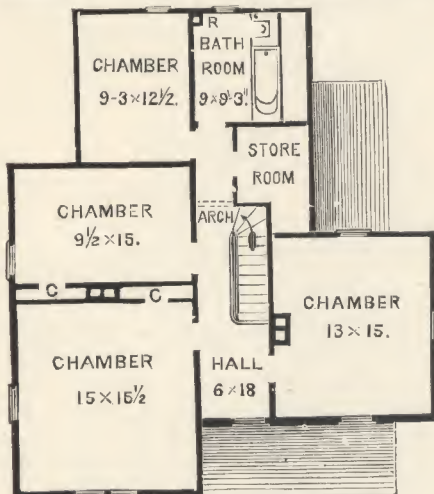


Fig. 49.—PLAN OF THE SECOND STORY.

of brick, unless stones are convenient and cheaper. The walls show two feet above the earth grades. The chimneys are also of brick, having continuous flues from each fire-place and the cellar, and with tops laid in cement mortar. Timber of sawed spruce; siding of pine, "novelty" pattern. Roof of pine shingles, on spruce lath. Flooring, outside of narrow pine, inside of wide spruce. Plastering three coats and hard finished. The windows have sash with lights as indicated in the elevations. If desirable the windows facing the ve-

randas may extend to the floor. The sash for these should be similar in every respect to the others, with panel fitted under the sash and hung to swing like a door. This will be found a very simple and satisfactory method of extending any windows to the floor. No special, and, therefore, expensive sizes of sashes are required, but all may be of uniform and stock dimensions. When completed they match other windows in the same apartment, in appearance, and in their usual mode of operation, and may be readily opened to pass through by raising the lower sash and swinging back the panel. Five marble shelves with stucco trusses, are set in the principal rooms. Plumbing is similar to that described on page 38, with the addition of bath-room fixtures. The veranda roofs are shingled. All valleys and gutters are of tin. The gutters laid in on the second course of shingles. Painting inside and out of pure lead and linseed oil.....

ESTIMATE.—Cost of material and labor:

88 yards excavation, at 25c. per yard	\$32.00
18,000 bricks, foundations and chimneys, at \$12 per M.....	216.00
50 ft. blue stone (steps, etc.), at 12c. per ft.....	6.00
730 yards plastering, at 25c. per yard.....	182.50
4,500 ft. timber (as follows), at \$15 per M.....	67.50
Sills, 4×8 in. 170 ft. long.	2 ridges, 2×8 in. 28 ft. long.
Ties, 4×6 in. 170 ft. long.	68 rafters, 3×4 in. 15 ft. long.
Plates, 4×6 in. 112 ft. long.	44 beams, 3×8 in. 16 ft. long.
9 posts, 4×7 in. 16 ft. long.	18 beams, 3×8 in. 14 ft. long.
2 posts, 4×6 in. 12 ft. long.	Verandas, 3×7 in. 60 ft. long.
1 ridge, 2×8 in. 13 ft. long.	
100 joists, 3×4 in. 13 ft. long, at 15c. each	15.00
300 wall strips, 2×4 in. 13 ft. long, at 12c. each	36.00
450 shingling lath, 1 ¹ / ₄ ×2 in. 13 ft. long, at 6c. each	27.00
70 bunches shingles, 18 in., at \$1.25 per bunch	87.50
260 siding, 9 ¹ / ₂ in., at 28c. each.....	72.80
Cornice materials.....	30.00
242 flooring, 9 in. (inside), at 28c. each.....	67.76
48 flooring, 4 ¹ / ₂ in. (outside), at 25c. each.....	12.00
2 stairs, principal and cellar (complete).....	40.00
6 cellar windows (complete), at \$3 each.....	18.00
16 plain windows (complete), at \$7 each.....	133.00
5 dormer windows (complete), at \$10 each.....	50.00
22 doors (complete), at \$6 each.....	132.00
5 verandas, finish (complete).....	40.00
5 marble shelves (complete).....	25.00
7 closets, finish (complete).....	15.00
4 kegs nails, \$20; plumbing (complete), \$120.....	140.00
Carting, \$20; painting, \$125.....	145.00
Carpenters' labor (not included above).....	175.00
Incidentals.....	44.94
Total cost of the building, complete.....	\$1,800.00

DESIGN XII.



Fig. 50.—FRONT ELEVATION OF THE HOUSE.

A HALF-STONE HOUSE, COSTING \$2,000.

The plans here given represent a substantial and convenient house for well-to-do farmers, or others, who may find it suited to their circumstances. The outside walls of the first story are of stone, and for this reason the design will be of special interest to those living where building stone is abundant. In point of economy, where

little outside wood-work to be affected by dampness from the ground or shrubbery. The body of the building may therefore be set as low down as desirable for convenience. The site, however, should be elevated, for dryness and good appearance. The earth taken from the cellar excavations will be sufficient in most cases to raise the

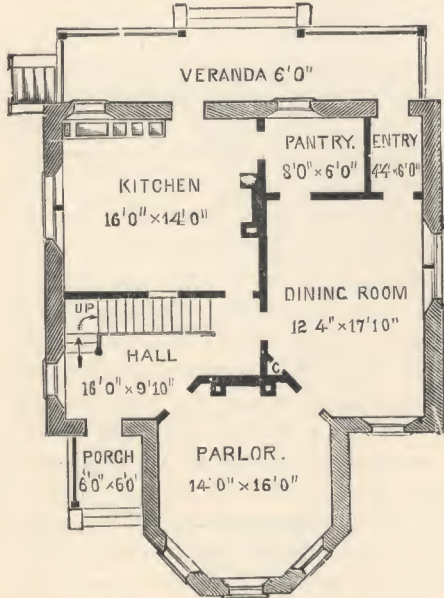


Fig. 52.—PLAN OF FIRST STORY.

grounds one foot immediately surrounding the house....
 CELLAR (fig. 51).—The height is $6\frac{1}{2}$ feet. It has suitable windows for light and ventilation, and at the same time is sufficiently below ground to be warm in winter and cool in summer. An outside entrance is placed under one end of the rear veranda. The chimneys are centrally located, and have openings in them for ventilators leading through continuous flues to the top. Stairs are arranged leading

to the kitchen above.....FIRST STORY (fig. 52).—Hight of ceiling, 10 feet. A hall, three rooms, pantry, rear entry, and closet form the general divisions of this story. There are three outside entrances, one in front, and two in the rear. One of the rear entrances leads to the dining-room through an entry from the rear veranda, and obviates the necessity of constantly passing through the kitchen to reach the principal rooms. The main hall is of convenient shape and size, and is entered from the front porch; it connects with each of the principal rooms, contains the main stairs, and is pleasantly lighted by a window at one end. The parlor is octagonal in form, with openings symmetrically arranged, and windows disposed to good advantage for outlooks and views. The two longest sides are unbroken, giving space for wall furniture. The dining-room is of fair dimensions, and is accessible from the outside through the front hall, and rear entry; it is in convenient connection with the parlor and pantry, and has windows in front and on one side. The kitchen is conveniently arranged, has an open fire-place suitable for a range, with a large double window opposite. It connects through doors with the main hall, pantry, cellar stairs, and rear veranda, and contains a pump, sink, and three wash-tubs. The pantry is full size, has an outside window, and is thoroughly shelved. The rear entry is designed as the family entrance, and has cleats and hooks for overcoats, etc. The chimneys are located where the warmth will be saved to the interior, and greatly lessen the quantity of fuel required to keep the house warm in cold weather.....SECOND STORY (fig. 53).—Hight of ceilings, 8 feet. There are a hall, four chambers, a bed-room, and four closets. It will be seen that there is no waste room. The stair-landing or hall is in the center, and though occupying but little space, has five doors leading to the several apartments, besides one door opening to the garret stairs. Each room is

of fair dimensions, and has abundant window openings. The head-room for the main stairs is partially taken from the bed-room floor, forming an angle from the ceiling below to the face of the partition seen to cross the stairs.—This angled portion is “squared up,” forming a shelf three feet high in the bed-room.....

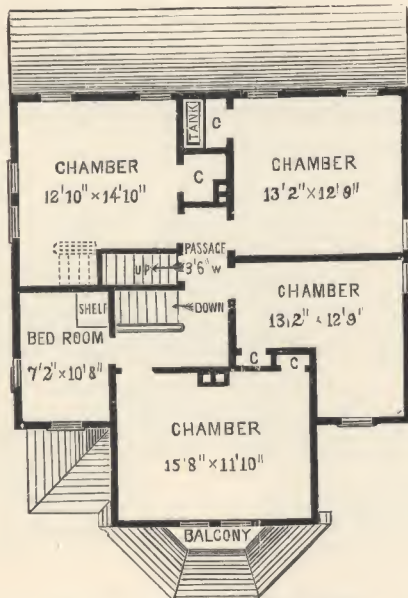


Fig. 53.—PLAN OF SECOND STORY.

ATTIC.—The plates show 2 feet, and the center 11 feet above the floor. The whole is floored over roughly for storage, etc.....CONSTRUCTION.—The cellar and first story walls are of broken stone laid in best mortar, in the cellar 18 inches thick, and in the first story 16 inches. All sills and lintels are of blue stone. The frame is of sawed timber of sizes indicated in the estimate. The siding for the upper portion are clap-boards, laid on

sheathing boards of even thickness. A good effect would be obtained from shingling the second story with red wood, or cedar, instead of clap-boards; and the cost would be increased probably thirty dollars. The roofs are of shingles laid on spruce lath. The inside flooring is of 8-inch spruce, tongue-and-grooved; outside of 4 $\frac{1}{2}$ -inch pine. The cellar windows have three lights each, and are hung with butts; all other window lights as shown, hung to balance weights with best cord. All doors are of pine, panelled and molded. Plumbing as described on page 38. Plastering, three-coat work. Painting, two coats.....

ESTIMATE.—Cost of materials and labor:

115 yards excavation, at 25c. per yard.....	\$28.75
134 perches stone-work (complete), \$2.75 per perch.....	368.50
130 ft. blue stone (sills, lintels, and area steps), at 12c. per ft.....	15.60
5,000 brick in chimneys (complete), at \$12 per M.....	60.00
660 yards plastering (openings out) (complete), at 25c. per yard.....	165.00
6,000 ft. timber, as follows, at \$15 per M.....	90.00
1 girder, 4×8 in. 38 ft. long.	14 beams, 3×8 in. 18 ft. long.
17 beams, 3×8 in. 15 ft. long.	14 beams, 3×8 in. 14 ft. long.
12 beams, 3×8 in. 17 ft. long.	8 beams, 3×7 in. 16 ft. long.
13 beams, 3×8 in. 13 ft. long.	14 beams, 3×7 in. 18 ft. long.
Sills, 3×8 in. 140 ft. long.	14 beams, 3×7 in. 14 ft. long.
20 posts, 4×7 in. 10 ft. long.	2 valleys, 3×7 in. 14 ft. long.
2 ties, 4×6 in. 9 ft. long.	36 rafters, 3×5 in. 18 ft. long.
Ties, 4×6 in. 27 ft. long.	18 rafters, 3×4 in. 11 ft. long.
Ties, 4×6 in. 16 ft. long.	1 ridge, 4×8 in. 35 ft. long.
1 plate, 4×8 in. 32 ft. long.	1 ridge, 3×7 in. 18 ft. long.
4 plates, 4×8 in. 9 ft. long.	1 veranda, 3×7 in. 66 ft. long.
16 beams, 3×8 in. 16 ft. long.	
75 joists, at 15c. each.....	11 25
200 wall strips, at 12c. each.....	24.00
150 sheathing, 9 $\frac{1}{2}$ in. (body of 2d story), at 25c. each.....	37.50
260 siding (6-inch clap-boards), at 12c. each.....	31.20
32 wide ceiling for gables, at 25c. each.....	8.96
Cornice materials.....	35.00
350 shingling lath, at 6c. each.....	21.00
57 bunches shingles, at \$1.25 per bunch.....	71.25
200 ft. tin, valleys, gutters, and leaders, at 8c. per ft.....	16.00
54 4-inch flooring (for outside), at 25c. each.....	13.50
345 8-inch flooring (for inside), at 28c. each.....	96.60
9 cellar windows (complete), at \$3 each.....	27.00
24 plain windows (complete), at \$8 each.....	192.00
22 doors (complete), at \$8 each.....	176.00
Porch and veranda (complete).....	30.00
Stairs (complete), \$40; mantels (complete), \$40.....	80.00
Closet finish (complete).....	15.00
Plumbing (complete), \$50; carting, \$15.....	65.00
Painting (complete).....	100.00
150 furring strips 1×2×12, at 4c. each.....	6.00
Carpenter's labor, \$120; Incidentals, \$94.89.....	214.89
Total cost of the building, complete.....	\$2,000.00

DESIGN XIII.

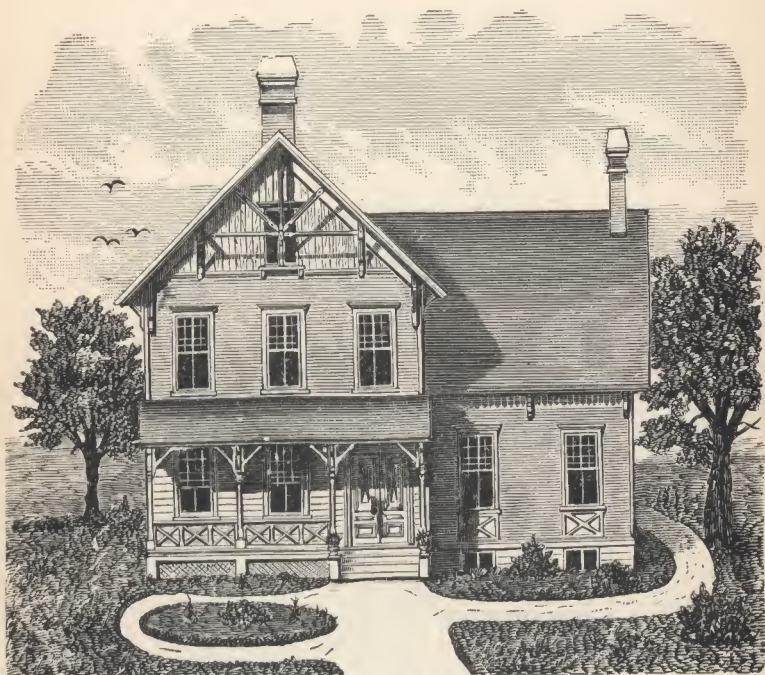


Fig. 54.—FRONT ELEVATION OF THE HOUSE.

A SUBURBAN COTTAGE, COSTING \$2,200.

These plans were prepared for a tasty, convenient, and comfortable dwelling, especially adapted to the requirements of such persons as have grounds with at least 50 feet frontage.....EXTERIOR (fig. 54).—The front has a breadth of $37\frac{1}{2}$ feet. The foundations show two feet above the ground. An additional elevation of the whole building can be given by raising the ground a foot or more immediately surrounding the building. The out-

lines and projections are sufficiently diversified and angular to comport with rural surroundings. The details of the exterior finish are simple in design, and in all cases arranged to suit some practical purpose.....CELLAR.—The cellar (fig. 54) extends under the entire main building and wing, with stone walls 6½ feet high, and having five small windows, an outside entrance, and stairs

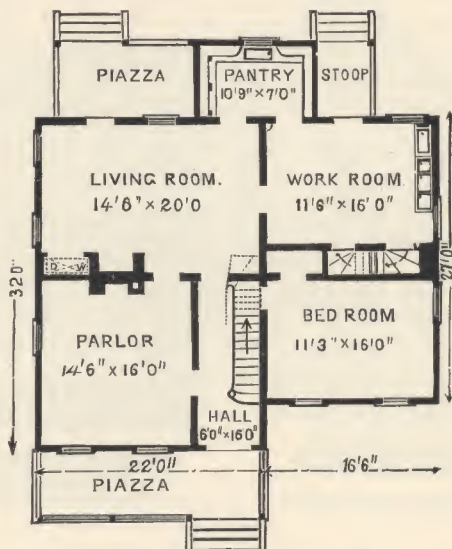


Fig. 55.—PLAN OF FIRST STORY.

leading to the work-room above.....FIRST STORY (fig. 55).—Height of ceiling in main house, 10 feet; in wing, 8 feet 8 inches. A hall, parlor, living-room, bedroom, work-room, pantry, and three closets are embraced in the divisions of this story. The front entrance is from a pleasant piazza to the main hall, and from it each of the principal apartments of the first story are entered. The hall also contains the main flight of stairs leading to the second story. The space under the stairs is left open far

enough to allow for a passage to the bedroom. The parlor is of fair size, well lighted, and contains a marble mantel. The living-room is the most spacious apartment in the house, intended as the common gathering place of the family. Its interior arrangement is partially shown in figure 57, where views of one side and both of its ends are given. The side not shown has doors opening from

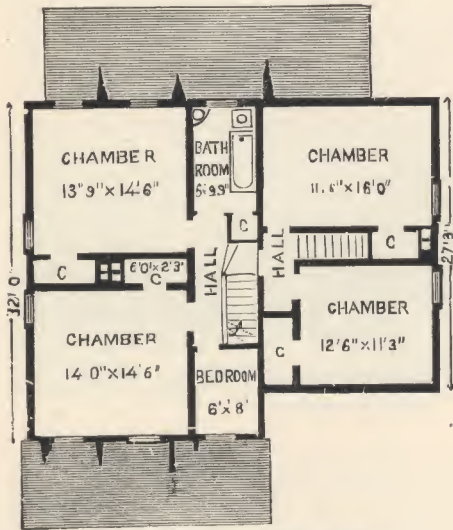


Fig. 56.—PLAN OF SECOND STORY.

the rear piazza and pantry, with a window between, giving views to the rear. A large range, with elevated oven, is set in the fire-place, with a shelf above. The space between the chimney and end wall, at the right, is filled out flush with the face of the chimney-breast, and furnished with a fuel-box below, and shelving with glass doors above. The fuel-box has capacity for a barrel of coal, and is hung to balance weights, and operates as a dumb waiter, filled in the cellar, and runs up to where

its contents may be easily reached, and passed to the range as required. An opening is made through the hearth beneath the range, through which all the ashes fall into an ash-pit, formed in the foundation of the chimney. By these arrangements, it will be seen much of the heavy work is saved, and the scattering of coal-dust and ashes prevented. A ventilating register is placed in the chimney above the range, near the ceiling, to draw off the heated air and steam constantly arising from the range when in use. At the right-hand end of the room are two windows, giving views to the side. Be-

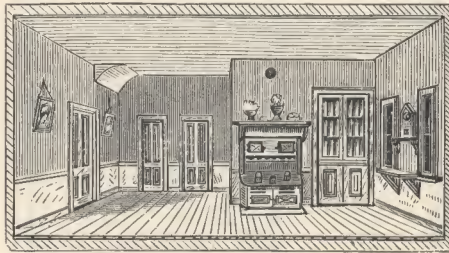


Fig. 57.—INTERIOR OF THE LIVING-ROOM.

tween these windows an ironing-board is placed, and, being hung with hinges, may be let down so as to occupy but little space when not in use. Above the latter a clock and lamp-shelf is placed on small brackets of scroll-work. The right-hand door opens to the parlor or sitting-room; the one next to it leads to the main hall, and the third, in the center of the left-hand end, opens to the work-room. The work-room is designed as a sort of kitchen, where the coarsest work is done. It has two windows, and doors opening from the outside, a stoop, pantry, kitchen, and stairs from the cellar and the second story. This work-room contains a pump, sink, and three stationary wash-tubs. The bedroom is pleasantly situated,

with outlooks to the front, and is sufficiently removed from the routine and noise of the general housework to insure its being quiet at all times. A person having many official or professional calls, requiring an office, might appropriate this room to that purpose, by simply changing one of the windows to a door or outside entrance. The pantry is of good dimensions, and conveniently arranged, as shown in figure 58. It is entered from the dining-room and work-room, and is lighted by a full-sized window. A wide plank extends around three of its sides, as a work-shelf, with a wash-tray inserted opposite

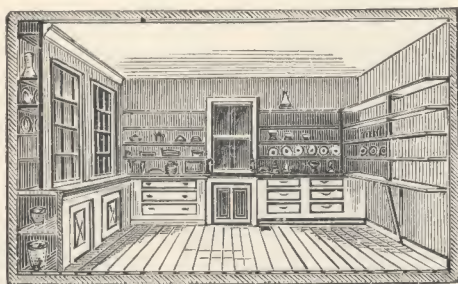


Fig. 58.—ARRANGEMENT OF THE PANTRY.

the window. The space under this shelf is occupied by closets and drawers on two sides, the balance being left open for barrels, etc. Above are shelves, placed at convenient distance from each other, and enclosed on one side with sash doors....SECOND STORY (fig. 56).—Height of ceilings in main part, 8 feet, and in the wing, 4 to 8 feet. There are five sleeping apartments, five closets, a bath-room, and two small halls in this story. The platform near the head of the main stairs is on a level with the wing floor. The stairs to the attic are placed over the main flight.....The following ESTIMATE indicates the character of the work, and the cost of materials :

80 yards excavation, at 25c. per yard.....	\$20.00
1,350 ft. stone work (complete), at 8c. per ft.....	108.00
4,000 brick in chimneys (complete), at \$12 per M.....	48.00
850 yards plastering (complete), at 25c. per yard.....	212.50
6,500 ft. timber, at \$15 per M.....	97.50
Sills, 4×8 in. 170 ft. long.	
Girders, 4×8 in. 67 ft. long.	
6 posts, 4×7 in. 21 ft. long.	
3 posts, 4×6 in. 13 ft. long.	
Ties, 4×6 in. 275 ft. long.	
Plates, 4×6 in. 100 ft. long.	
Ridges, 3×8 in. 51 ft. long.	
30 beams, 3×8 in. 22 ft. long.	
26 beams, 3×8 in. 17 ft. long.	
16 beams, 3×7 in. 22 ft. long.	
34 rafters, 3×5 in. 18 ft. long.	
18 rafters, 3×5 in. 20 ft. long.	
Veranda timbers, 3×8 in. 200 ft. long.	
150 joists, 3×4×13, at 15c. each.....	22.50
300 wall strips, 2×4×13, at 12c. each.....	36.00
186 siding, at 28c. each.....	52.08
Cornice materials.....	30.00
500 shingling lath, at 6c. each.....	30.00
78 bunches shingles, at \$1.25 per bunch.....	97.50
250 ft. tin valleys, gutters, and leaders, at 8c. per ft.....	20.00
319 flooring (inside), 9½ in. wide, at 28c. each.....	89.32
80 flooring (outside), 4½ in. wide, at 15c. each.....	12.00
5 cellar windows, at \$3 each (complete).....	15.00
24 plain windows, at \$7 each (complete).....	168.00
Veranda finish, \$60; stairs, \$60; mantels, \$50.....	170.00
28 doors (complete), at \$8 each.....	224.00
Closet finish, \$50; plumbing, \$150; painting, \$150.....	350.00
Carpenters' labor, not included above.....	300.00
Carting, \$30; incidentals, \$67.60.....	97.60
Total cost of the building, complete.....	\$2,200.00

DESIGN XIV.

A DOUBLE COTTAGE, COSTING \$2,500.

These plans are of a double cottage, suited to villages. It provides convenient accommodation of five fair-sized rooms on separate floors, and ample cellar for two families, each with front and rear entrances. The extreme outside measurements are 28 by 43 feet. A plot of ground 50 feet in width and of the usual depth would be of sufficient size, placing the building in the middle, and leaving a space of 11 feet on each side. The balance of the ground may be equally divided for the separate use of each family occupying the house....EXTERIOR (fig. 59).—The front elevation indicates the character of the building. The separate porches, windows, and other

parts are symmetrically arranged, and give a pleasing effect, which is sustained on the sides and rear. The foundation shows 4 feet above ground, giving the building a desirable altitude for appearance, and affording opportunity for good-sized cellar windows for light and ventilation.....THE CELLAR (fig. 60) extends under the entire

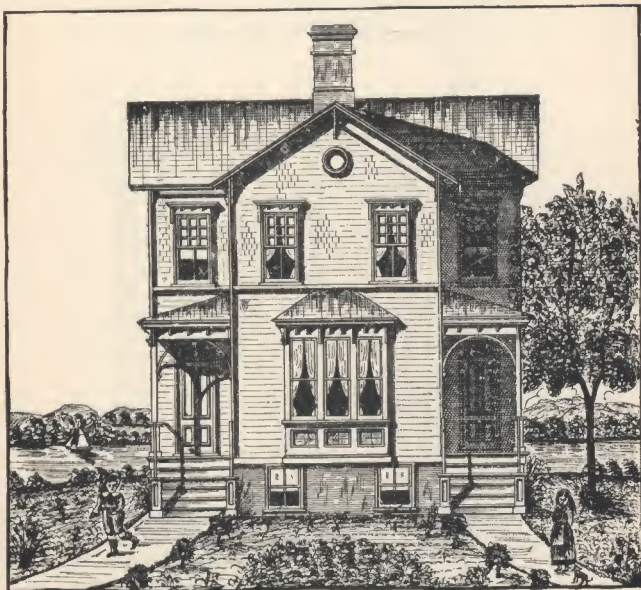


Fig. 59.—FRONT ELEVATION OF A \$2,500 COTTAGE.

building, and is divided equally by a close partition, extending from front to rear. Each half has four windows, an outside entrance, and stairway. Hight of ceiling $6\frac{1}{2}$ feet.....FIRST STORY (fig. 61).—Hight of ceiling 9 feet. The front and rear entrances are on the left side, one leading to the front vestibule, and the other to the rear entry. The parlor and living-room are of good dimensions, well lighted, and are entered directly from the

front vestibule. There are three bedrooms, four closets, and stairs to the cellar. There is no communication with the entrances or stairways of the second story.... SECOND STORY (fig. 62).—Height of ceiling 9 feet. The entrances are on the right side, and similar to those on

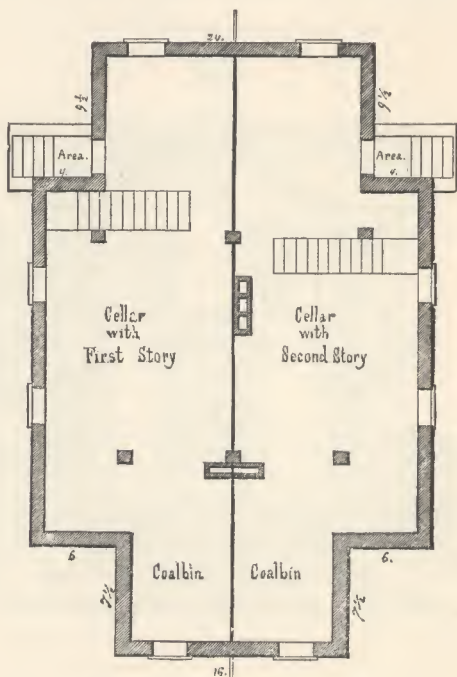


Fig. 60.—PLAN OF THE CELLAR.

the opposite for the first story. The vestibule and rear entry are enlarged to contain the necessary front and rear stairs leading to the second story and cellar. The arrangement of the rooms on this floor is the same as in the first story, and without direct communication.... CONSTRUCTION.—The cellar excavations are $2\frac{1}{2}$ feet.

The foundation walls are of hard brick and mortar, 8 inches thick. The frame is of seasoned spruce; siding for the first story is of beveled pine clapboards, laid $\frac{4}{8}$ to show on heavy, rosin-sized sheathing felt. The second

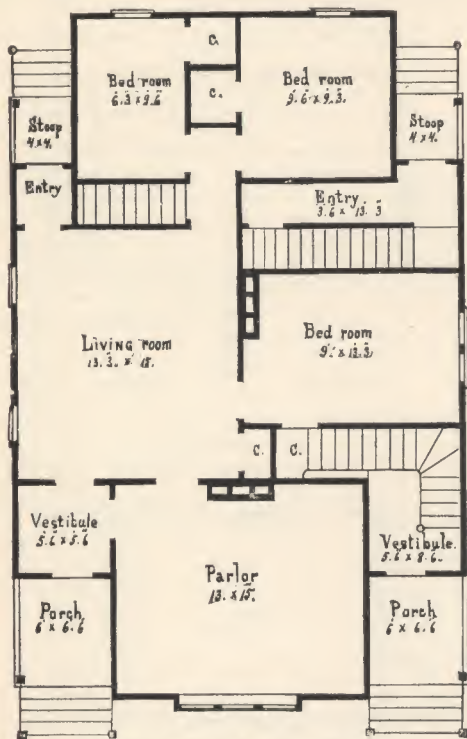


Fig. 61.—PLAN OF THE FIRST STORY.

story has red wood shingles laid on sheathing $\frac{1}{8}$ to show. The roofs are of 18-inch pine shingles, laid on spruce shingling lath. Outside floors are of $1\frac{1}{8}$ by 4 inch T. & G. pine, close-laid in paint, and blind-nailed. Inside floors are of $1\frac{1}{8}$ by 7-inch T. & G. spruce, close-

laid and double-nailed to each bearing. The interior finish is pine. Jambs rabbeted of plank. Architraves $3\frac{1}{4}$ by 5-inch, reeded, with base and corner blocks. The base in all parts is 8 inches wide. The window finish, with panels, extends to the floor. All sashes are $1\frac{3}{8}$ inch thick, glazed as indicated on the elevation, with

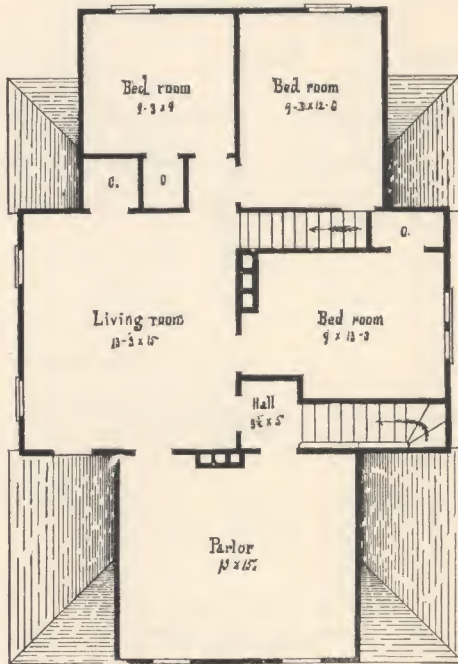


Fig. 62.—PLAN OF THE SECOND STORY.

second quality French glass, and hung to balance weights. The doors are of pine paneled and molded; saddles of hard wood, molded. The interior walls are hard-finished on two coats of brown mortar, and seasoned lath. All work usually painted has two coats of pure lead and linseed oil, with the addition of such stainers as will produce the de-

sired shade. A sink and pump, with the necessary pipes for supply and waste, are provided, and set in each story. The closets are shelved and hooked in the usual manner. All wood-work exposed is clear of knots, and the labor is performed in a substantial manner.

ESTIMATE : Cost of materials and labor :

77 yards excavation, at 25c. per yard	\$19 25
12,000 brick, in foundation (complete), at \$15 per M.....	180.00
4,000 brick in chimneys (complete), at \$15 per M.....	60.00
60 ft. blue stone steps and coping, at 30c. per ft.....	18.00
850 yards plastering (complete), at 30c. per yard.....	255.00
116 ft. stucco cornices (complete), at 25c. per ft.....	29.00
3,400 ft. of timber, at \$20 per M.....	68.00
175 joist studding and rafters, at 16c. each.....	28.00
200 wall strips, studding and ceiling, at 11c. each.....	22.00
620 clapboards, at 16c. each.....	99.20
275 yards felt, at 8c. per yard.....	22.00
116 ft. cornices (complete), at 20c. per ft.....	23.20
270 shingling lath, at 6c. each.....	16.20
50 bunches shingles, at \$1.50 per bunch.....	75.00
200 ft. of tin, 128 ft. gutters and leaders (complete), at 10c. per ft.....	32.80
2,450 ft. flooring, inside, at 3c. per ft.....	73 50
108 ft. flooring, outside, at 4c. per ft.....	4.32
4 porches and stoops (complete), at \$30 each.....	120.00
4 flights stairs (complete).....	100 00
8 cellar windows (complete), at \$4 each.....	32.00
17 windows (complete), at \$10 each.....	170 00
4 circular windows (complete), at \$3 each.....	12.00
31 doors (complete), at \$8 each.....	248.00
4 mantels (complete), at \$20 each.....	80.00
2 sinks and pumps (complete), at \$25 each.....	50.00
7 closets, finished (complete).....	27.00
5 kegs nails, at \$4 per keg.....	20.00
Cartage.....	25.00
Painting (complete).....	200.00
Carpenter's labor, not included above.....	250.00
Incidentals.....	140.53
Total cost of the building, complete.....	\$2,500.00

 DESIGN XV.

A HOUSE, COSTING \$2,500.

We present in illustrations 63, 64, 65, 66 and 67, plans of a house, containing ten good sized rooms, and large veranda—costing \$2,500, and presenting a neat and attractive appearance. The building is of Queen Anne style, now becoming so very popular, and makes a very handsome and commodious residence for town or country. The

general arrangement was suggested by a woman, who determined to dispense with the conventional main hall and stairway, occupying the most prominent place in the front part of the house, and provided instead a vestibule entrance outside the house, from a part of the veranda. The stairs are located in a less conspicuous place, with approaches from two directions at the foot, thus

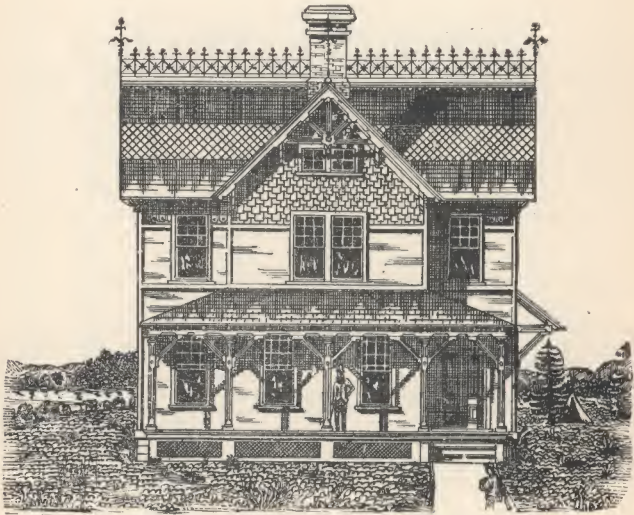


Fig. 63.—FRONT ELEVATION OF HOUSE.

making them serve equally well for general or family use from the main house, and as a private stairs from the rear extension.....EXTERIOR (figs. 63 and 64).—The outlines are angular, and somewhat picturesque. The body is two feet above ground, and but a few easy steps are required to reach the entrances from the outside. The extensive veranda and other projections afford protection from storms to the windows and entrances, besides affording desirable shade. The roofs are of dark

slate, one-third of those on the main roof being pointed and laid in belts. A cresting of ornamental iron is set along the main ridges, and, when properly connected with ground rods, serves to protect the building from lightning. The window openings have a single light of plain glass in the lower sash, and several smaller tinted

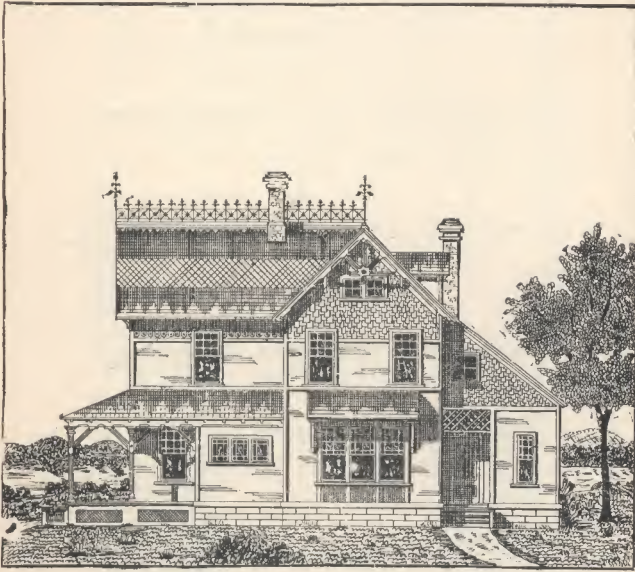


Fig. 64.—SIDE ELEVATION OF HOUSE.

lights in the top one. The tinted glass, in a variety of colors, produces, with little cost, a very cheerful effect, both outside and inside.....The CELLAR equals the first story in area. It has an outside entrance, five windows, and stairs leading to the first story. Hight of ceiling, $6\frac{1}{2}$ feet.....FIRST STORY (fig. 65).—The hight of the ceilings is 10 feet. There are four good-sized rooms, each with outlooks at their sides and ends. The main entrance is from the front veranda, through a good-sized

and pleasant vestibule, which is lighted at the side by a cluster window of tinted glass, and has side and end doors opening to the parlor and sitting-room. The par-

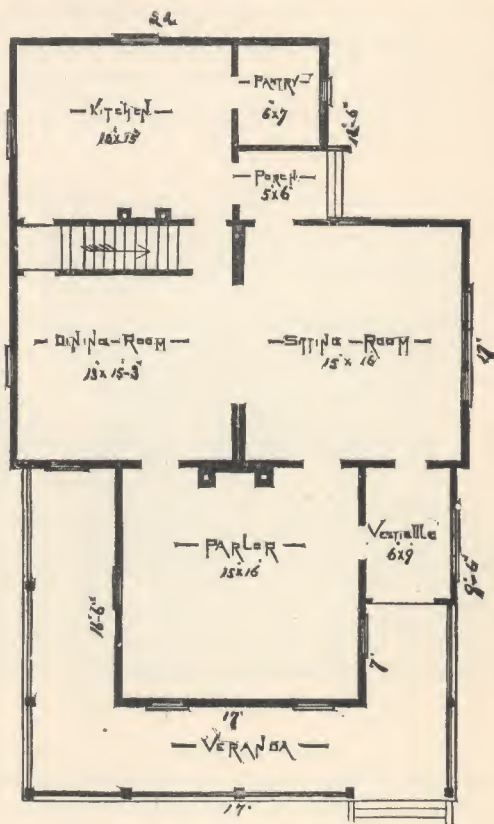


Fig. 65.—PLAN OF MAIN FLOOR.

lor has four windows facing three directions, each protected from storms, and agreeably shaded by the veranda. There is a large open fire-place, and doors communicating with the sitting and dining-rooms. The sitting and

dining-rooms adjoin each other through sliding-doors, which admit of their being used together, as occasion may require. The kitchen is convenient, well lighted, has a large fire-place, with range, and adjoins a pantry.

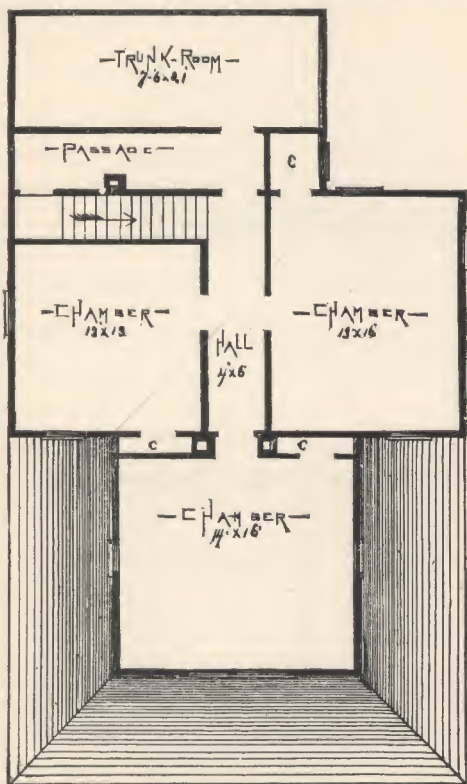


Fig. 66.—PLAN OF SECOND STORY.

The rear entrance, or porch, is also reached through a door from the sitting-room. The stairs to the cellar and to the second story are placed between the dining-room and kitchen, and may be reached from each direct....

SECOND STORY (fig. 66).—Height of ceiling is 9 feet. This story has a central hall, three chambers, three closets, and a trunk-room. The stairs to the attic are placed above those of the first story.....ATTIC (fig. 67).—Height of ceiling is 3 feet at the plates or sides, and follows the

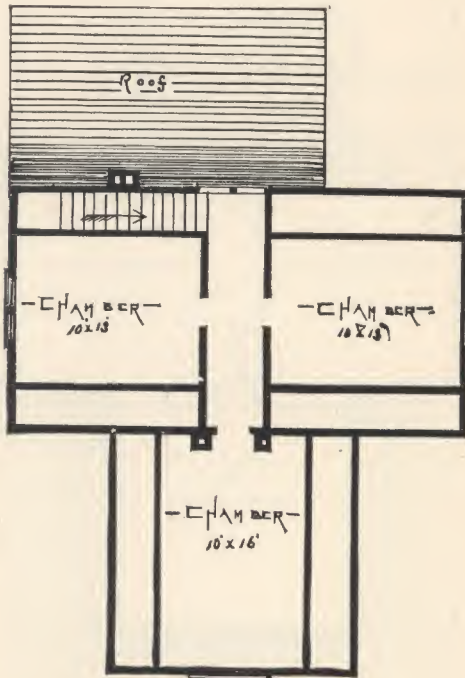


Fig. 67.—PLAN OF ATTIC.

rafters to the full height of 7 feet. A hall and three chambers are finished on this floor, with the doors and windows placed in the center of the ends of each.....
 CONSTRUCTION.—The foundations and chimneys are of hard brick, laid in good mortar. The frame is of sawed spruce; with siding, for the body, of clap-boards laid on

thickened sheathing and building felt. The gables and frieze courses are of red-wood shingles, also on sheathing. The main roof is of dark slate, laid on sheathing and tarred felt. The veranda roofs are also of slate, laid on inverted pine flooring. The flooring outside is of $1\frac{1}{4}$ by $4\frac{1}{2}$ -inch T. and G. pine; inside, of $1\frac{1}{8}$ by 7-inch T. and G. spruce. The windows have plank frames, with $1\frac{1}{2}$ -inch sash, glazed with second quality French glass. The doors are of seasoned pine, paneled and molded. The inside finish is clear pine, reeded, with blocks. The inside walls and ceilings are hard-finished on two coats of brown mortar, and the principal rooms of the first story have neat stucco cornices. The painting is two-coat work, of selected colors.

160 yards excavation, at 25c. per yard	\$40 00
15,000 brick, foundations and chimneys (complete), at \$15. per M.....	225.00
32 feet blue stone (steps and sills), at 30c. per foot ..	9.60
1,000 yards plastering, at 30c. per yard	300.00
210 stucco cornices, at 20c. per ft.	42.00
5,000 feet timber, at \$20 per M.	100.00
100 joists, at 16c. each.....	16.00
250 wall strips, at 11c. each.....	27.50
4,500 feet sheathing, at 3c. per ft.....	135.00
450 clap-boards, at 16c. each.....	72.00
21 bunches shingles, at \$1.50 per bunch.....	31.50
$24\frac{1}{2}$ squares slate, at \$9 per square.....	220.50
950 feet outside flooring, at 5c. per ft.....	47.50
2,650 feet inside flooring, at 4c. per ft.....	106.00
5 cellar windows, at \$3 each.....	15.00
23 full sized windows, at \$8 each.....	184.00
11 half windows, at \$5 each.....	55.00
29 doors, at \$7 each.....	203.00
3 stairs, at \$10 each.....	30.00
Veranda and porch finish.....	50.00
5 kegs nails, at \$4 each.....	20.00
4 closets finish.....	20.00
Mantels.....	30.00
Tin gutters and leaders.....	20.00
Carting.....	20.00
Painting.....	180.00
Carpenter's labor, not included above.....	240.00
Pump, sink, and incidentals.....	60.40
Total cost of the building, complete.....	\$2,500.00

DESIGN XVI.

A FRENCH-ROOFED COTTAGE, COSTING \$2,500.

These plans are for an economical and convenient cottage, adapted for a village residence. It has three finished stories, containing the usual halls, twelve rooms, seven closets, a pantry, and a large cellar. If desired, a part of

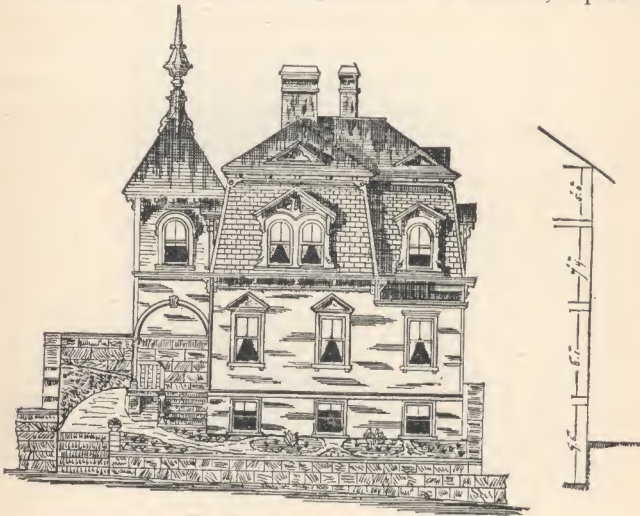


Fig. 68.—PLAN OF ELEVATION.

the cellar may be finished off for a dining-room and kitchen, increasing the number of rooms to fourteen.... EXTERIOR (fig. 68).—The main part of the building has compact and rounded outlines, with sufficient breadth to make it strong. The arched porch is covered by a second story projection, with a tower-like finish, which increases the breadth, and adds a stately and inspiring feature to the structure.... CELLAR (fig. 69).—Height of ceiling is 7 feet. The extreme ground measurements agree with those of the main house. The cellar has an outside en-

trance at the rear, partially covered by a small projection of the first story. There are seven windows, two fire-places, and stairs leading to the floor of the first story. When parts of the cellar are finished into rooms, it may be preferable to place the entrance under the porch at the side, instead of at the rear....FIRST STORY (fig. 70). Hight of ceiling, 9 feet. The main entrance and hall open from the side porch through double doors. The principal rooms are entered directly from the hall. The

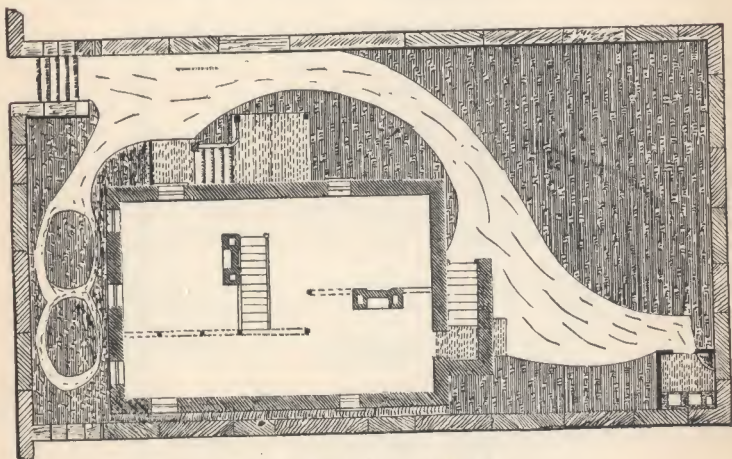


Fig. 69.—PLAN OF CELLAR.

parlor is a pleasant apartment, having windows in two sides, and open fire-place suitable for a grate or heater. It adjoins a small room, also well lighted, which may be used either as a bedroom, sewing-room, or library, as desired. The dining-room and kitchen adjoin each other at the rear, each with window-openings on two sides. The kitchen is convenient, has a large open fire-place, with range, and adjoins a large pantry. The cellar stairs are reached directly from the pantry—especially convenient in collecting and preparing food for the table, most

of which is stored in the cellar.....SECOND STORY (fig. 71).—Hight of ceilings, 8 feet. The hall is centrally located, and communicates directly with each of the five rooms of this story. It is lighted from above, through the stairway well, and contains a wash-stand in one corner for general use. The three principal chambers have side and end windows, closets, and adjoin chimney flues,

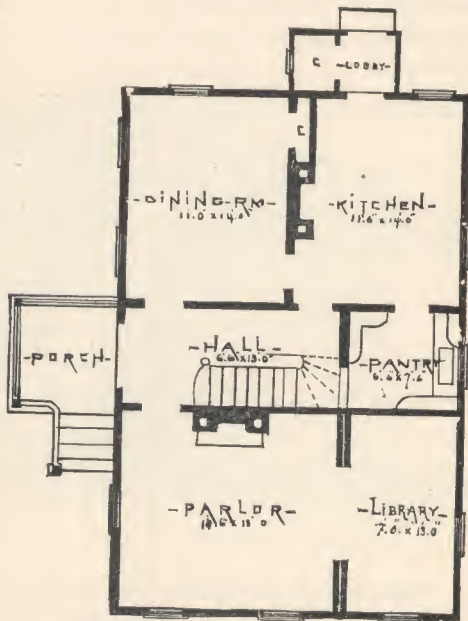


Fig. 70.—PLAN OF FIRST STORY.

so that stoves may be used in them if required. There are two hall bedrooms, suitable for single beds, each with windows facing the front.....THIRD STORY (fig. 72).—Hight of ceiling, 5 feet at the plates, and following the rafters to the full hight of 7 feet. The main stairs are made continuous from the first story, with a large well, opening through which light is admitted to the lower

halls from a skylight placed in the ceiling and roof, directly above the stairs. The hall extends across the main building, and has doors opening to three good-sized chambers, which are lighted and ventilated by small dormers set in the deck roof, 5 feet above the floor.....CONSTRUCTION.—The foundations show three feet above ground, and are of broken stone, laid to lines in 14-inch

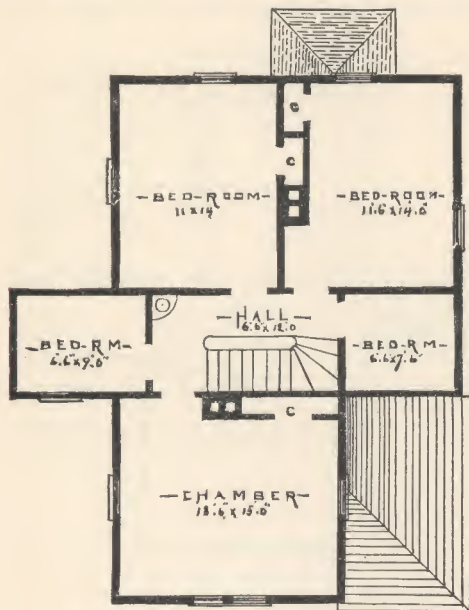


Fig. 71.—PLAN OF SECOND STORY.

courses, and neatly pointed. The frame is of sawed timber, fitted and secured in the best manner. The beams for the third story floor are of $1\frac{1}{4}$ by 8-inch plank, with one end thoroughly spiked to the main rafters, and the other resting on the partition plates. All beams, studing and rafters are placed 16 inches apart, and the beams are bridged in the centers of their spans. The

sidings are of clear clapboards, laid on sheathing; roofs of dark slate, laid on hemlock boards and tarred felting; floors of $1\frac{1}{8}$ by 7 inches T. & G. spruce; stairs of pine, with newels, rails, and balusters of ash, made continuous to the third story. The windows have plank frames, with timber sills, and $1\frac{3}{8}$ -inch sash, glazed with second quality French glass. Doors are paneled and molded of seasoned pine. The inside casings are pine, with archi-

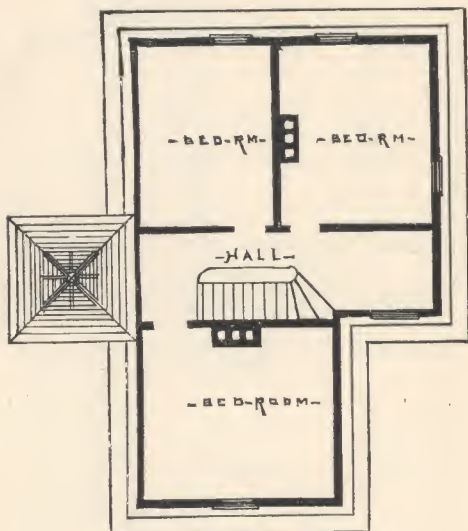


Fig. 72.—PLAN OF THIRD STORY.

traves opened and reeded, and corner blocks and plinths, extending to the floor. Plastering is hard-finished on one "laid off" coat of best brown mortar. The porch has arched finish on three sides, level ceiling of narrow-beaded boarding, and outside steps, with neat newels and railings. A range is set in the kitchen fire-place, an iron sink in the pantry, and a wash-bowl with marble slab and well-plates in the hall of the second story, with the nec-

essary piping of galvanized iron for the introduction of water from the street main, and lead pipes with traps are connected to convey all waste water to outside the front foundation walls, where they connect with tile drain pipes leading to the street sewer. All parts outside usually painted have two coats of best paint, in colors to suit the owner. The inside wood-work is stained and wood filled, and the whole left complete for occupation.

ESTIMATE: Cost of materials and labor.

80 yards excavation, at 25c. per yard.....	\$20.00
1,160 feet stone foundation (complete), at 15c. per ft.....	174.00
53 feet blue stone, at 30c. per ft.....	15.90
4,000 brick in chimneys, at \$15 per M.....	60.00
830 yards plastering, at 30c. per yard.....	249.00
150 feet stucco cornices, at 25c. per ft.....	37.50
4,000 feet timber, at \$20 per M.....	80.00
180 joists, at 16c. each.....	28.80
300 wall strips, at 11c. each.....	33.00
130 clap-boards, 6 in., at 16c. each.....	20.80
250 feet cornices, at 15c. each.....	37.50
21 squares slate, at \$9 per square.....	189.00
3 squares tin, gutters, and leaders, at \$10 per square.....	30.00
3,400 feet sheathing, sides, and roofs, at 3c. per ft.....	102.00
2,500 feet flooring, at 4c. per ft.....	100.00
Porch and lobby.....	60.00
Stairs.....	70.00
7 cellar windows, at \$4 each.....	28.00
11 first-story windows, at \$9 each.....	99.00
10 second-story windows, at \$12 each.....	120.00
3 deck windows, at \$8 each.....	24.00
27 doors, at \$7 each.....	189.00
4 mantels, at \$16 each.....	64.00
Closet finish.....	20.00
Range and plumbing.....	100.00
5 kegs nails, at 4c per lb.....	20.00
Carting.....	30.00
Painting.....	180.00
Carpenter's labor, not included above.....	275.00
Incidentals.....	43.50
Total cost of the building, complete.....	\$2,500.00

DESIGN XVII.

FARM BUILDINGS, COSTING \$3,000, COMPLETE.

These plans are for compact, convenient and economical farm buildings. The arrangements are similar to buildings on the farm of Mr. George Thorpe, in East Meriden, Conn., with some modifications to meet the

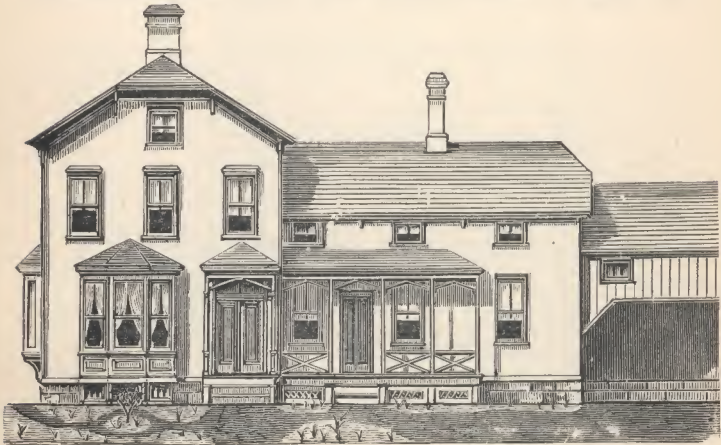
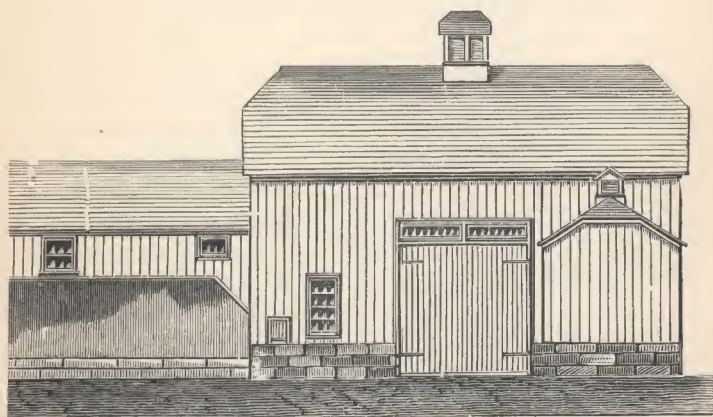


Fig. 73.—FRONT ELEVATION OF HOUSE, SHED, AND

more general requirements. There are several objections to having all the principal farm buildings joined together, such as the increased danger from fire and dust. The buildings shown, fig. 73, with first and second stories condensed in figs. 74 and 75, are well adapted to be erected at a distance from each other, if preferred. The owner in this case considered all the objections, and concluded that they could be overcome by an intelligent arrangement of the several parts, covering all by insurance (which would be essential in any case), and also by exercising a proper carefulness in management. He claimed

that for all this he would be fully repaid by increased convenience, especially as the unevenness of the adjacent grounds made it desirable to have the buildings on a limited space.....SITE.—The grounds are slightly inclining to the right, and ending at a brook of running water at a short distance. Having a southward frontage, the north winds are shut off from the yards and principal entrances. In preparing for the building at first, mate-



BARN JOINED TOGETHER, AND COSTING \$3,000.

rials and forces already on the farm were utilized, and the excavating, grading, getting out stone, hauling materials, building the foundations, digging well, etc., were done at odd spells, so that, excepting the wages of a stone-mason, the cost of these parts was scarcely felt..... DWELLING.—The CELLAR, $6\frac{1}{2}$ feet in clear height, extends under the whole house, with foundations showing 2 feet above ground. The FIRST STORY (fig. 76) has ceilings 10 feet high, and contains a hall, five rooms, and a pantry. The living-room is the largest, with outside doors and windows front and rear, and communicates

directly with a work-room, front hall, and the cellar stairs. The work-room is used as a "scullery" and entrance-way from the shed, and from it a private stairway leads to the second story. The parlor, at a distance from the working and living-room, has a bay-window in front,

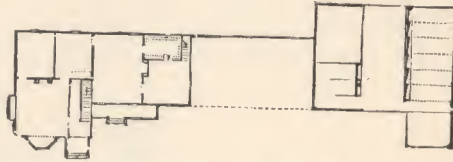


Fig. 74.—CONDENSED PLAN OF THE BUILDINGS.

and a plant-window at the side. The hall is entered from the front porch, and contains the main stairs, with the cellar stairs underneath....**SECOND STORY** (fig. 77).—Ceilings 8 feet high in the main house, and 4 to 8 feet high in the wing. It has eight sleeping rooms, a hall, passage, and six closets. The hall and passage join through a door, which may be fastened to cut off all communication between these parts when desirable. The stairs to the attic are over the main flight. The attic is floored, and provides good storage room.....**BARN**.—The foundations are of stone, laid in trenches below the reach

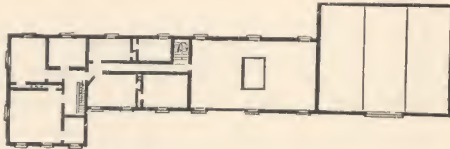


Fig. 75.—SECOND STORY AND LOFT, CONDENSED.

of frost, and the outside walls carried up to 3 feet above ground. All stone-work above ground is faced and pointed on both sides. This unusual height of the foundations above ground insures increased warmth to the interior, and prevents decay of the wood-work immedi-

ately above. The main sills are laid flat on the stonework, and thoroughly embedded in mortar, preventing entrance of air or moisture at the joinings. The height

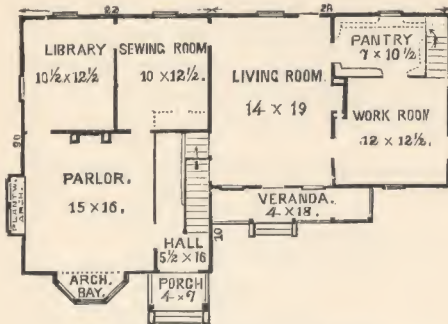


Fig. 76.—FIRST STORY OF HOUSE.

of the principal frame is suited to the use of 16-foot tongued and grooved vertical boarding—this, added to the 3 feet of foundation, gives sufficient height for practical use. The central space (fig. 78) has large doors at

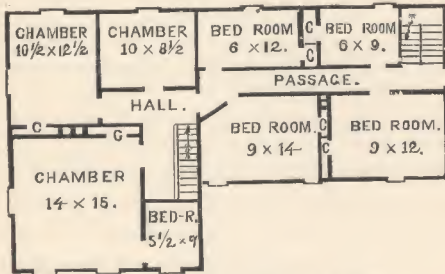


Fig. 77.—SECOND STORY OF HOUSE.

each end, admitting hay loads from front or rear. Headlights over these doors give sufficient light to the interior when the doors are closed.—The cow-stables are 7 feet high, and are placed at the farthest distance from

the dwelling. The two horse-stalls are 8 feet high. If others are wanted, they can be taken from the bay. All stables and stalls are tightly floored above, to prevent dust from sifting through from the hay-loft.....The CATTLE SHED (only partly shown).—The rear and end foundations are of stone, the same as the barn. The open or lower portion is 8 feet high, with fodder-racks and mangers along the side. A door in the side leads

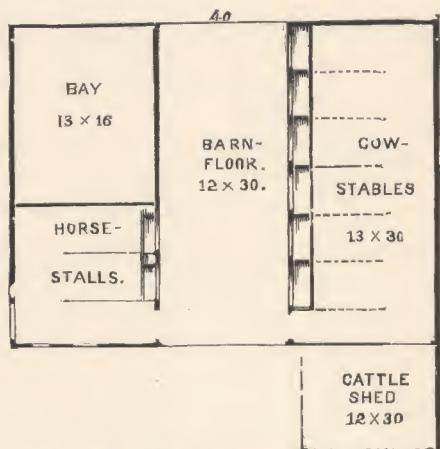


Fig. 78.—THE FLOOR PLAN OF THE BARN.

to the grounds at the right. The upper portion is 4 feet high at the plate, has a door opening to the yard, and is floored for a hay-loft..... WAGON SHED.—The foundations correspond with those of the dwelling. The lower portion is 9 feet high—sufficient for top-carriages. There is space for a wagon and feed-bins, besides leaving a covered-way from the house to the barn. The entire front is unobstructed, a strong truss supporting the upper part. Flap-doors at the rear, swinging upwards, give summer ventilation. The upper portion, floored over, and lighted by six small windows, answers for a repair-

ing and storage-room. A trap-door in the center (fig. 75), and a strong hook for tackles, in the ridge above, facilitate lifting heavy articles. Sleighs, wagons, hay-rakes, plows, or any farm utensil, may be easily raised to the shop for repairs or storage.....Cost.—The following estimate of materials and cost is given separately for the principal parts. Everything is plain and substantial.

DWELLING ESTIMATE.

100 yards excavation, at 20c. per yard	\$20.00
1,400 feet stone work (complete), at 8c. per ft.	112.00
45 feet blue stone, at 15c. per ft.	6.75
3,000 brick (complete), at \$12 per M.	36.00
790 yards plastering (complete), at 25c. per yard.	197.50
5,000 feet timber, at \$15 per M.	75.00
100 joists, at 15c. each, \$15; 275 wall strips, at 11c. each, \$30.25.	45.25
547 siding, 6 in. at 16c. each, \$87.52; cornice materials, \$28.	115.52
300 shingling laths, at 6c. each	18.00
52 bunches shingles, at \$1.25 per bunch.	65.00
20 hemlock boards, at 15c. each	3.00
270 feet tin, 72 feet leaders.	32.00
375 flooring, 8 in., at 18c. each.	67.50
Porch and veranda (complete)	42.00
5 cellar windows (complete), at \$4 each.	20.00
2 bay and plant windows (complete)	65.00
15 plain windows (complete), at \$8 each.	120.00
5 small windows (complete), at \$5 each.	25.00
32 doors (complete), at \$6 each.	192.00
Mantels and shelves (complete).	32.75
Stairs (complete).	60.00
600 lbs. nails, \$18; incidentals, \$44.73; carting, \$20.	82.73
Carpenter's labor, not included in the "complete" above.	280.00
Closet finish, \$12; painting, \$125	137.00
Total cost of the building, complete.	\$1,850.00

ESTIMATES FOR BARN AND SHEDS.

31 yards excavation (complete), at 15c. per yard.	\$4.65
1,400 feet stone work (complete), at 6c. per ft.	84.00
7,000 feet timber, at 15c. per M.	105.00
300 siding, at 26c. each, \$93.60; 200 joists, \$30.	123.60
Cornice materials.	8.00
500 shingling lath, at 6c. each.	30.00
90 bunches shingles, at \$1.25 per bunch.	112.50
2 ventilators (complete).	15.00
11 windows (complete), at \$4 each.	44.00
7 doors (complete).	30.00
40 flooring, 2 in., at 40c. each.	16.00
178 flooring, 3/4 in., at 25c. each.	44.50
500 lbs. nails, \$18; carting, \$20.	38.00
Painting (complete), \$75; incidentals, \$19.75	94.75
Carpenter's labor not included above.	200.00
Total.	\$950.00
Wells, cisterns, pens, and yard fences.	200.00

RECAPITULATION.

Dwelling	1,850.00
Barns and sheds	950.00
Wells, etc.	200.00
Total	\$3,000.00

DESIGN XVIII.

A SUBURBAN RESIDENCE, COSTING \$3,500.

The plans here given, represent a tasty, substantial and roomy dwelling, suitable to the wants of well-to-do

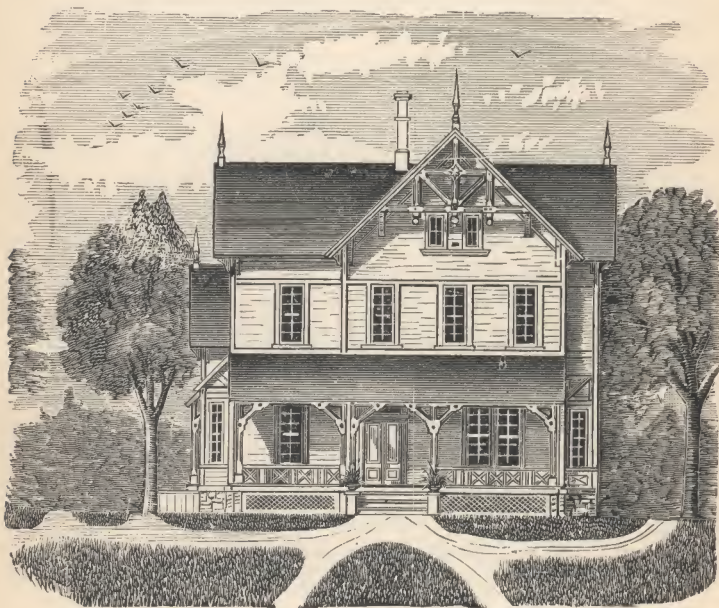


Fig. 79.—FRONT ELEVATION OF THE HOUSE.

families residing out of town.....EXTERIOR (figs. 79 and 80).—The outlines are irregular and proportionate. Each face has sufficient diversity in projections and details to give an animated and picturesque appearance. The roofs and gables are treated in a simple manner, to accord with refinement and rural surroundings.....The FRONT (fig. 79), has a breadth of 35 feet, across which extends a shady veranda, covering the main entrance and

the front parlor window; there is also a pleasant balcony, covering the front sitting-room window....The SIDE (fig. 80), has an extreme depth of 63 feet. A porch protects the entrance to the kitchen from this side. The rear entrance to the main house is on the opposite side of the house....CELLAR (fig. 81).—Hight, $6\frac{1}{2}$ feet. This story

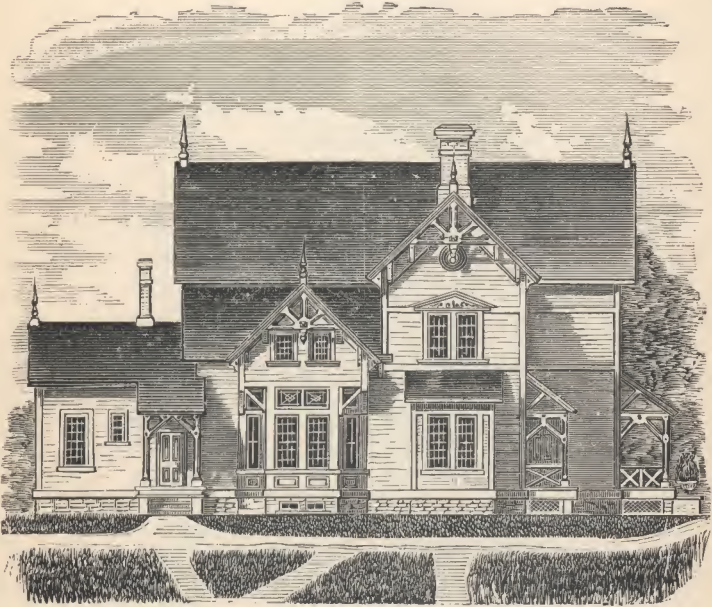


Fig. 80.—SIDE ELEVATION OF THE HOUSE.

includes the entire space below the main house, giving plenty of cellar room for all usual requirements. The outside entrance is from the rear, and a stairway leads to the kitchen....FIRST STORY (fig. 82).—Hight of ceiling, 10 feet. The principal entrance is from the veranda through double front, and vestibule doors, to the main hall. This hall communicates with each of the principal rooms on this floor of the main house. The parlor

doors are double, and directly opposite to them is a sash door opening to the balcony. At the rear end of the hall is an entry through which the rear stoop is reached. The parlor and library adjoin each other through sliding doors, and may be used as one room as occasion may re-

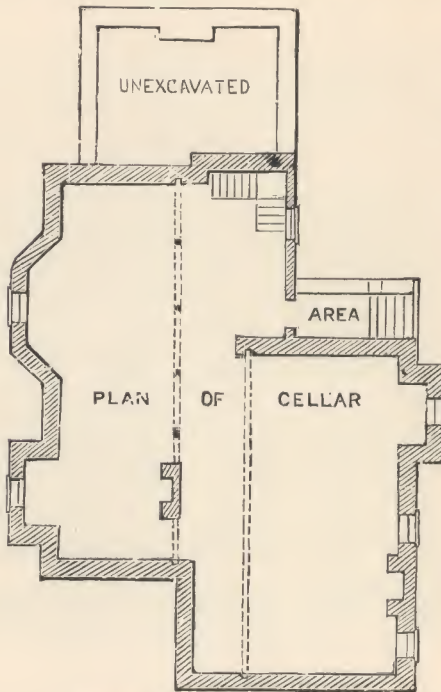


Fig. 81.—PLAN OF THE CELLAR.

quire; each is well lighted, and are sufficiently separated from the living rooms to prevent annoyance in them from the machinery of general house-work. The sitting-room is a cheerful apartment, with an open fireplace suited to a grate on the hall side, and a large bay window opposite. A front window is arranged with a swinging panel

below the sash opening to the floor, and leading to the balcony; opposite to it is a door leading to the dining-room. The dining-room is octagonally shaped and of good dimensions. It has a large bay window with four



Fig. 82.—PLAN OF THE FIRST STORY.

full sized sashes extending upward to the ceiling, and containing upper ventilating sashes with stained glass, as can be better seen in elevation, figure 80. This window is a pleasant feature, and with the addition of a double row of brackets, and potted flowers, may be made to

serve acceptably as a substitute for a conservatory. Direct communication is arranged from this room with the kitchen, pantry, china closet, and the rear entry. The kitchen is conveniently arranged with a large open fireplace suited to a range, four windows give ample light from three of its sides; it has doors leading to the dining-room, pantry, closet, outside porch, and to the private stairs leading to the second story. A pump, sink, and three wash-tubs are set at the sides of the fireplace. The pantry is thoroughly shelved, and one side dresser-finished with sash doors above and drawers below. The cellar stair-way is situated under the private stairs, and is made to open from the pantry.....**SECOND STORY** (fig. 83).—Hight of ceiling, 9 feet in the main house, and 4 to 8 feet in the rear section. The hall is central, and convenient to the principal chambers, front bedroom, and connects with the rear passage. Each of the principal chambers is large, and has window openings on two of its sides. The rear passage is lighted from a dormer window, and through a sash door this light is transmitted to the main hall. The passage leads to two chambers, a store room, and by the private stairs to the kitchen. All communication between the rear section and the main house in this story, may be cut off by closing the sash door at the end of the main hall....**ATTIC**.—Space for storage, etc., is made under the roof of the main house. It is floored, and has windows in the gables, but otherwise unfinished. The stairs are placed above the main flight, boxed in, and have a door at the foot.....**CONSTRUCTION**.—The foundations are of broken stone and mortar, $1\frac{1}{2}$ foot thick, except where reduced for the stair-way, and are finished to show $2\frac{1}{2}$ feet above the earth grades. For the unexcavated part they extend in the ground below the reach of frost, and have openings in them sufficient to insure ventilation beneath the kitchen floor. The area steps and coping, and the sills

for the cellar windows, are of blue stone. The cellar windows are made to swing inside and upwards, and are held open as required by being hooked to the beams above. The chimneys are of hard brick and mortar,

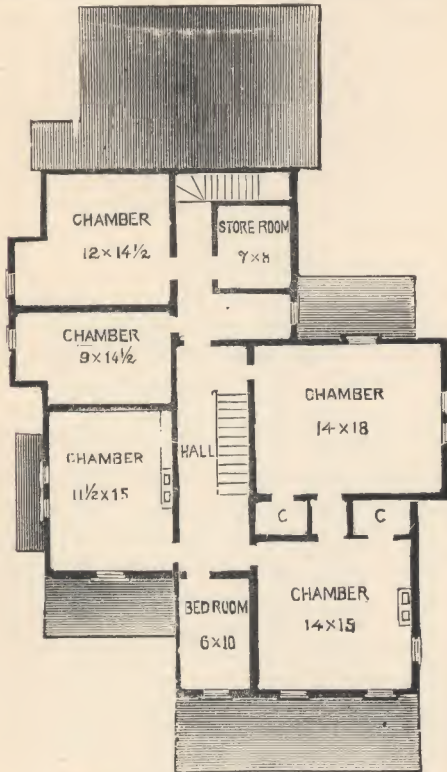


Fig. 83.—PLAN OF THE SECOND STORY.

with tops laid in cement. The main frame is of sawed timber thoroughly framed. The inclosing is of double boarding—first with 10-inch sheathing of even thickness, then with 6-inch clear pine clapboards. The roofing is of the best quality of 18-inch pine shingles, and for the

principal parts are laid on spruce lath. The valleys, gutters, and leaders are of IX charcoal tin. The inside flooring is of 8-inch spruce, outside of 4 $\frac{1}{2}$ -inch pine. Plastering, hard-finish on two coats of best brown mortar, and seasoned lath, with neat stucco cornices, are put in the principal rooms. The principal finish in the gables and verandas is of timber neatly stop-chamfered, and fitted together. The rafters of the latter are left exposed to sight, with the roof-planking laid face down and beaded, complete for painting. Lattice panels are put under the veranda floors, as shown in fig. 79. The sash and doors are all of "stock sizes," 1 $\frac{1}{2}$ inch thick, glazed with second quality of sheet glass, and in the two main stories are hung to weights with the best cord. All windows in the first story of the main house have panels under them. The doors are of first quality pine, paneled and molded. A force pump is placed at the end of the kitchen sink to throw water into a tank placed under the kitchen roof, and from thence pipes carry water to the sink and wash-tubs. Painting is two coats of best materials in shades to suit. The following estimate is made at the uniform standard of prices given in this volume, and though differing somewhat from "prices current," will greatly aid in making calculations, especially as to the quantities of materials:

225 yards excavation, at 25c per yard	\$56 25
75 perches stone work (complete), at \$2.75 per perch	206 25
6,000 brick in chimneys (complete), at \$12 per M	72 00
60 feet stone (sills, steps, etc.), at 12c. per ft.	7 20
900 yards plastering (complete), at 25c. per yard	225 00
330 feet stucco cornices and centres (complete), at 25c. per ft	82 50
7,500 feet timber, at \$15 per M	112 50
200 joists, at 15c. each, \$30; 400 wall strips, at 12c. each, \$48	78 00
500 shingling lath, at 6c. each	30 00
90 bunches shingles, at \$1.25 per bunch	112 50
Cornice materials	80 00
400 feet ties, valleys, gutters, and leaders, at 8c. per ft.	32 00
3-0 sheathing (10), at 25c. each	95 00
775 clap-boards (6), at 12c. each	93 00
160 flooring (outside, 4 $\frac{1}{2}$), at 25c. each	40 00
500 flooring (inside, 8), at 28c. each	140 00
6 cellar windows (complete), at \$3 each	18 00
38 plain windows (complete), at \$8 each	304 00
38 doors (complete), at \$8 each	304 00

Verandas and porches (complete).....	50 00
Stairs (complete), \$10; mantels (complete), \$100.....	140 00
Closets (complete), \$20; plumbing (complete), \$150.....	170 00
8 kegs nails, \$24; carting, \$30.....	54 00
Carpenter's labor, not included above.....	350 00
Painting (complete), \$220; incidentals, \$427.80.....	647 80
Total cost of the building, complete.....	\$3,500.00

—◆—

DESIGN XIX.



Fig. 84.—FRONT ELEVATION—FACING EASTWARD.

A RESIDENCE, COSTING \$4,000, COMPLETE.

This plan is for a commodious, convenient residence, economically constructed with appliances for heating, ventilation, water, etc., complete.... ELEVATION (fig. 84). The outlines are irregular, and agreeably conform to the

The outside entrance to the kitchen and cellar is by the area at the rear. A convenient stairway leads from the front entry in the basement to the rear entry in the first story....FIRST STORY (fig. 86).—Height of ceiling in main part, 10 feet; in the wing, 9 feet. The principal entrance has double front and vestibule doors to a large hall, $9\frac{1}{2}$ by $18\frac{1}{2}$ feet. Small closets at each side of the vestibule serve for umbrellas, overshoes, etc. At the left, double doors, leading to the parlor, and further on

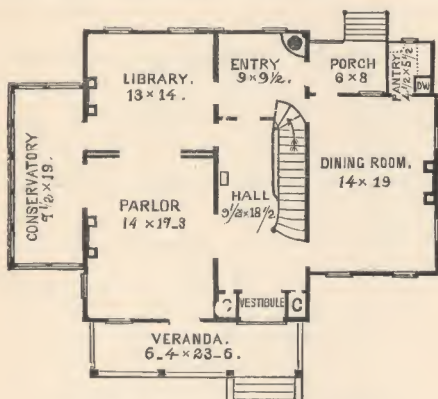


Fig. 86.—PLAN OF THE FIRST STORY.

a door leads to the library, at the right, one to the dining-room, and one at the rear, to the back entry. The parlor is of ample size, and adjoins the library through sliding-doors. Each of these rooms has hard-wood mantels, is well lighted from without by large windows, and both have sash-doors leading to the conservatory. The latter is finished with a concrete bottom, and altogether costs but \$150. By a little effort at selection and arrangement of plants, this apartment may be made a constant source of interest and pleasure. The dining-room has outlooks in three directions, and communicates directly with the porch, hall, the rear entry, and a pan-

try having a dumb-waiter to the basement. The rear entry is cut off from the main hall (to save the latter from much common use and wear), and has a wash-bowl, and stairs leading to the basement. The rear porch and dining-room pantry are both under a roof similar to that shown for the front piazza; the pantry extending to the outer face forms an alcove of the porch. The main stairs to the second story are of the "quarter circle" pattern, with niche near the top, and have a 10-inch paneled newel, a $2\frac{1}{4}$ by $4\frac{1}{2}$ -inch molded rail, and

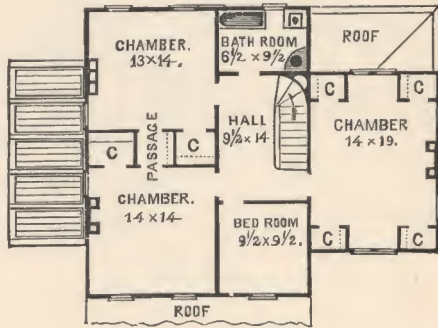


Fig. 87.—PLAN OF SECOND STORY.

$2\frac{1}{4}$ -inch fluted ballusters, all of hard-wood....SECOND STORY (fig. 87).—Height of ceiling in main part, 9 feet; in wing, 8 feet. The divisions are: a hall, three chambers, a bedroom, bath-room, and six closets, all of ample dimensions. Mantel shelves with trusses of hard-woods are put in each chamber. The stairs to the attic are placed above those of the first story, which are thus made continuous to the upper hall....ATTIC (fig. 88).—Height of finished ceiling, 9 feet. This is divided into a hall, two chambers, a bedroom, and two closets. The stairs to the tower are "boxed in" with narrow, double-dressed beaded ceiling, and have a paneled door at the foot....TOWER.—Size of floor plan (not shown), $9\frac{1}{2}$,

feet square. Hight of side walls to top of plate, 6 feet, and continued along the under side of the rafters at an angle of 45° to the ceiling, which is 9 feet high. The boxing of the attic stairs extends 2 feet above the floor, and has a molded cap along the top.....CONSTRUCTION. Foundation walls of hard brick and good mortar. Cellular bottom is levelled with concrete. The frame is of seasoned spruce. Enclosing of first quality pine clapboards laid on felt and dressed sheathing. Roofing of "Chapman" slate, laid on tarred felt and sheathing. Gutters and leaders of IX tin. Floors of narrow spruce.

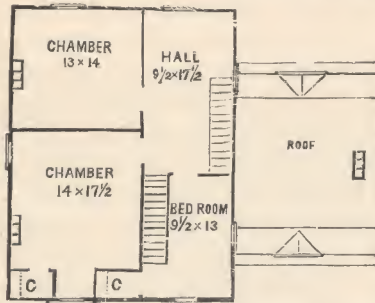


Fig. 88.—PLAN OF THIRD STORY, OR ATTIC.

Plastering, three coats, hard finished. Casings and moldings of clear pine. Doors all paneled and molded. Sash of best make, four lights to each window, and hung to balance weights. Blinds to each window above the foundation; shutters to kitchen windows. Painting, two coats of best materials. The hard-woods oiled. Plumbing: the tank (not shown) placed in the hall of the attic, just over the bath-room, is 3 by 4 by 6 feet, lined with lead: bath-tub, seat-closet, and wash-bowl in rear entry; range, boiler, sink, wash-tubs, and a force-pump in the kitchen; all connected with proper lead pipes for hot and cold water. A 4-inch soil-pipe leads from the bath-room to a 5-inch drain of vitrified tile

pipe, conveying all waste to a cesspool 50 feet from the house. The soil pipe is ventilated by a pipe leading from it to above the roof, with a T connection at the top. The heater is enclosed with brick, and has pipes to convey warmed air to the halls and rooms of the first and second stories. Bells from the front door to the rear entry, and from the second story hall to the attic and kitchen, are put in with wires passing through tubes concealed from sight. Speaking-tubes are put in, leading from the dining-room to the kitchen. The contract requires all done in a workmanlike and substantial manner, and of materials best adapted to their several purposes.Cost.—Any one at all familiar with building, will, by going over the following items of cost, learn the character of this house. The total of these items might easily be doubled if desirable, without changing the plans in the least, simply by increasing the expense in the details of finish. Whenever employed to prepare plans, our first inquiry is as to the amount to be appropriated for building, next to ascertain the accommodation required, the facts as to site, learn all possible of the characteristics and tastes of the owner and his family, then prepare plans to meet all the requirements, without exceeding the amount to be expended, and in no other way can an architect evidence the merits of his profession.....ESTIMATE.—Cost of materials and labor, viz.:

132 yards excavation, at 20c. per yard.....	\$26.40
24,000 brick (furnished and laid), at \$12 per M.....	288.00
80 feet blue stone, at 15c. per ft.....	12.00
1,250 yards plastering, at 25c. per yard.....	312.50
240 feet cornice, at 30c. per ft.....	72.00
84 yards concrete, at 30c. per yard.....	25.20
5,500 feet timber, at \$15 per M.....	82.50
200 joists, at 15c. each, \$30.00; 350 wall strips, at 11c. each, \$38.50....	68.50
550 flooring (inside), at 18c. each.....	99.00
50 flooring (outside), at 25c. each.....	12.50
520 sheathing, at 15c. each.....	78.00
500 clap-boards, at 20c. each.....	100.00
Outside cornices.....	45.00
27 squares slate, at \$9 per square.....	243.00
270 feet gutters and leaders, at 10c. per ft.....	27.00
Veranda and porch (complete).....	60.00
600 lbs. nails, at 3c. per lb.....	18.00
7 cellar windows (complete), at \$4 each.....	28.00

4 kitchen windows (complete), at \$6 each.....	24.00
23 plain windows (complete), at \$8 each	184 00
11 dormer windows (complete), at \$12 each.....	132 00
45 doors (complete), at \$7 each	315 00
4 stairs (complete).....	100.00
3 mantels and 6 shelves, \$108; plumbing, \$400	508.00
Furnace, etc., \$250; conservatory, \$150.....	400.00
Bells, speaking tubes, \$19; carting, \$30.....	49.00
Painting.....	150.00
Carpenter's labor, not included above.....	400.00
Incidentals.....	140.40
Total cost of the building, complete.....	\$4,000.00

DESIGN XX.

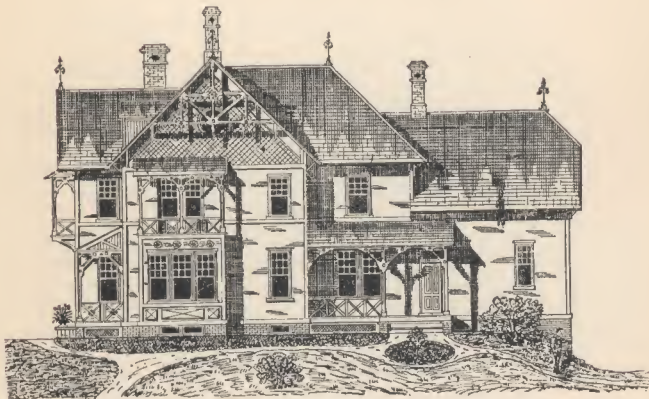


Fig. 89.—WEST SIDE ELEVATION OF HOUSE.

A COUNTRY RESIDENCE, COSTING \$4,000.

These plans were prepared for a dwelling built on elevated grounds, overlooking a large body of water. The exterior has a picturesque and cheerful appearance. Pleasant verandas are arranged on three sides. The main hall and principal rooms are unusually large, and all parts are provided with windows, affording outlooks in all directions.

The dimensions and arrangements are given on the plans. The foundations rise 18 inches above the ground at the highest point. The clear height of the cellar ceilings is 7 feet; first story in the main house, 10 feet; the wing, 9 feet 4 inches; second story, main house, 9 feet; wing, 4 to 8 feet. The whole height of the main frame from the bottom of the sill to the top of the plate is 21 feet; kitchen, rear wing frame, 14 feet and 8 inches. The cellar is excavated to a depth of $5\frac{1}{2}$ feet, and the

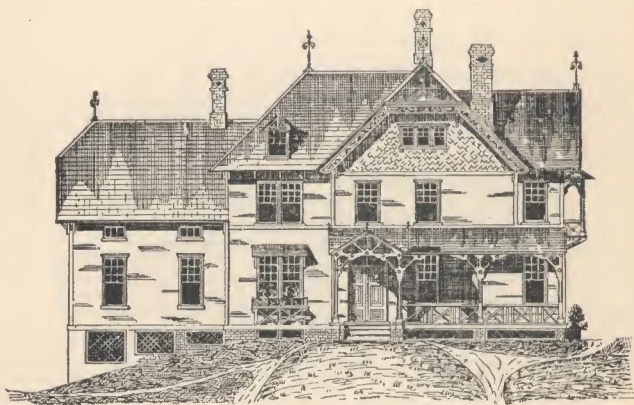


Fig. 90.—EAST ELEVATION OF HOUSE.

loose earth is used in grading. The walls are of broken stone, laid 18 inches thick and 7 feet high, and neatly pointed where exposed to sight. The sills for all cellar windows and hearth for the kitchen fire-place are of dressed blue-stone. The chimneys are of hard brick and best mortar. All flues are separate and continuous from the fire-places to the top. The interior side-walls and ceilings of the two principal stories are hard finished on two coats of best brown mortar and seasoned lath. The main hall and the three principal rooms of the first story have stucco cornices, panels, and centers.

The bay-window has "rule joint" corner finish, with soffit and corbels in the upper angles.

The timber is of sawed, seasoned spruce, and of the following sizes: Sills, 4 by 8; girders, 4 by 8; posts, 4 by 7; ties and plates, 4 by 6; ridges, 3 by 8; beams, 3 by 8; braces, 3 by 5; valleys, 3 by 8; rafters, M., 3 by 5; rafters, W., 3 by 4; verandas, 3 by 8.

All parts are thoroughly framed together, and secured with hard-wood pins. The beams in the two principal

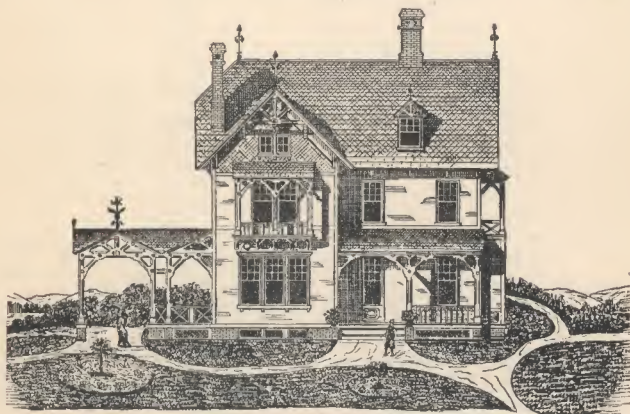


Fig. 91.—SOUTH ELEVATION OF HOUSE.

floors of the main house, and all studding, are placed 16 inches apart from centers; other beams and all rafters are 2 feet from centers. The tie crossing the opening to bay-window is 4 by 10. All trimmer beams are double, each tier of beams having a double row of cross-bridging through the center of their spans. The girders beneath the main partitions are supported at their ends by the masonry, and along their lengths by 5-inch locust posts, resting on large flat stones, embedded below the surface of the cellar bottom. All partitions are anchored together at their joinings. The windows are constructed,

as indicated by the plans, with plank stiles and sills, and all above the cellar have timber sub-sills.

The windows are glazed with second quality French glass. All sash in the cellar are hung with butts, and in the two principal stories to balance weights, with cord. The siding is of 6-inch clear pine clap-boards laid on T. & G. hemlock sheathing, and heavy sheathing paper.

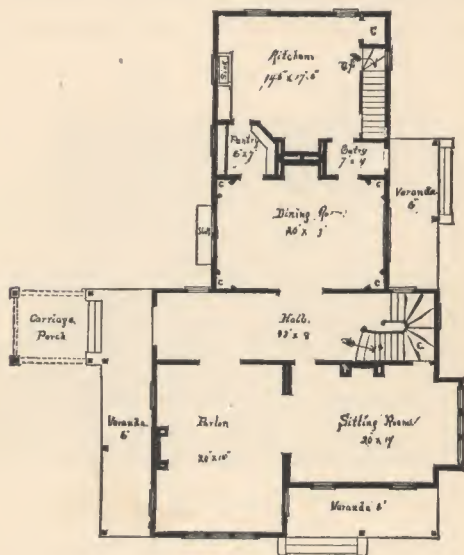


Fig. 92.—PLAN OF FIRST STORY.

The roofs are covered with 18-inch pine shingles of best quality, laid $5\frac{3}{4}$ inches to the weather on spruce shingling lath, except those for verandas and balconies, laid on inverted $1\frac{1}{8}$ by $4\frac{1}{2}$ -inch pine plank, neatly beaded on the under face. All valleys and gutters are of I X charcoal tin; former 20 inches wide, and the latter 14 inches, with one edge rolled and turned up 3 inches, and

“laid in” with the shingles on the second course, with sufficient incline to insure a good run for water. The bay-window is tinned over, with slat floor for balcony use. The verandas are supported on 5-inch locust posts extending in the earth below the reach of frost, and cased on their exposed faces, with panels of lattice-work between. The outside floors are of T. & G. $1\frac{1}{4}$ by $4\frac{1}{2}$ -

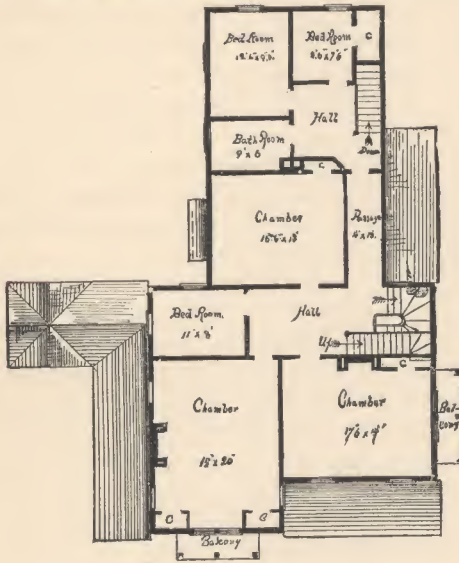


Fig. 93.—PLAN OF SECOND STORY.

inch clear pine, closely laid in paint, and “blind-nailed.” The inside floors are of T. & G. $1\frac{1}{8}$ by 7-inch spruce, closely laid and double-nailed to each bearing. The stairs are of clear pine. The main flight has a 9-inch paneled newel, and a $2\frac{1}{4}$ by $4\frac{1}{4}$ -inch molded rail of ash. The kitchen stairs are “boxed in,” plastered on the room side, with a door at the foot. The cellar stairs are placed under the kitchen stairs, with a door at the top.

The architraves for the interior are of clear pine reeded, with head and base blocks complete. The windows in the first and second stories have panels under them. Those opening to the verandas and balconies are double-faced, and hung to swing inward. The kitchen and dining-room have neat chair backs. A sink and drain-board are set and neatly cased with closet underneath. The pantry and all closets are shelved, and hooked in the usual manner. The doors are of first quality seasoned pine, paneled and molded. The front doors are 4-4 by 7 by $1\frac{3}{4}$, and heavily molded outside. The inside double doors are 5 by 7-4 by $1\frac{1}{4}$; sliding doors 7 by 7-6 by $1\frac{3}{4}$. All other room doors in the first story of the main house are 2-8 by 7-4 by $1\frac{1}{2}$. Outside blinds, with rolling slats of best manufacture, are put to each window in the first and second stories.

All the doors are hung with loose joint butts. Double-faced doors have mortised locks, and all single-faced doors, rim locks. The double doors have flush bolts top and bottom. The sliding doors have brass sheaves, way, and stops. All knobs, roses, and escutcheons are of white porcelain, with silver-plated shanks and bases. Brass sash fastenings are put to all windows in the first and second stories. An iron sink, 18 by 26 inches, and a pump set in the kitchen, with 50 feet of galvanized iron pipe, properly connected for supply and waste water. Three mantels are supplied for the first story, costing \$30 each, and two in the second story, costing \$20 each, with one marble shelf, resting on stucco trusses, costing \$8. All wood work usually painted has two coats of paint composed of pure lead and oil, with the addition of such stains as suit the owner.

All the materials of their several kinds are sufficient for and best adapted to the purposes required. Anything necessary to the thorough completion of the dwelling, such as nails, screws, etc., though not particularized

herein, are provided and used. The labor is performed in a substantial and workmanlike manner. The whole to receive the approval of the architect.

COST OF MATERIALS AND LABOR.

300 yards excavation, at 25c. per yard.....	\$75 00
2,100 ft. stone foundation (complete), at 12c. per ft.....	252 00
21 ft. blue stone, at 30c. per ft.....	6 30
6,000 bricks in chimneys (complete), at \$15 per M.....	90 00
1,200 yards plastering (complete), at 35c. per yard.....	420 00
425 ft. stucco work (complete), at 30c. per ft.....	127 50
11,025 ft. timber, at \$20 per M.....	220 50
150 joists, at 16c. each.....	24 00
475 wall strips, at 11c. each.....	52 25
3,000 ft. sheathing, at 3c. per ft.....	90 00
3,500 ft. felt, at 4c. per pound.....	11 68
550 c'apboards (6-inch), at 16c. each.....	88 00
250 ft. cornices (complete), at 24c. per ft.....	60 00
600 shingling lath, at 6c. each.....	36 00
108 bunches shingles (pine), at \$1.50 per bunch.....	162 00
4 bunches shingles (red wood), at \$2 per bunch.....	8 00
620 ft. tin (valleys, gutters, and leaders), at 8c. per ft.....	49 60
270 flooring (outside, 4½-inch), at 20c. each.....	54 00
580 flooring (inside, 7-inch), at 20c. each.....	116 00
8 cellar windows (complete), at \$3 each.....	24 00
42 windows, first and second stories (complete), at \$10 each.....	420 00
11 attic windows (complete), at \$3 and \$11 each.....	49 00
38 doors (complete), at \$8 each.....	304 00
4 stairs (complete).....	120 00
Verandas and balconies (complete).....	100 00
Pantry and closet finish (complete).....	28 00
8 kegs nails, at \$4 per keg.....	32 00
Sink and pumps (complete).....	15 00
6 mantels (complete).....	138 00
Painting.....	300 00
Carting.....	35 00
Carpenter's labor (not included above).....	400 00
Incidentals.....	92 17
Total cost of the building, complete.....	\$4,000 00

DESIGN XXI.

A COTTAGE, COSTING \$5,000.

Figures 94 to 101 show plans of a modern cottage, containing eleven rooms, with the usual halls, closets, pantry, bath-room, etc. This dwelling (figures 94 to 97), has a pleasing appearance, suggestive of comfort and cheerfulness. The simplicity of style and general finish accord with the utilitarian view now happily coming into fashion for all classes of building. Variety is a mani-

fest feature. The outlines of each front, the covering of the different stories, and in most cases the window and door openings, are arranged to be dissimilar in materials and form. Strong and decided contrasts in colors are applied to different parts, and tinted glass of various shades are used for the smaller lights of the sash.....THE CELLAR (fig. 100) extends under the entire main building, has

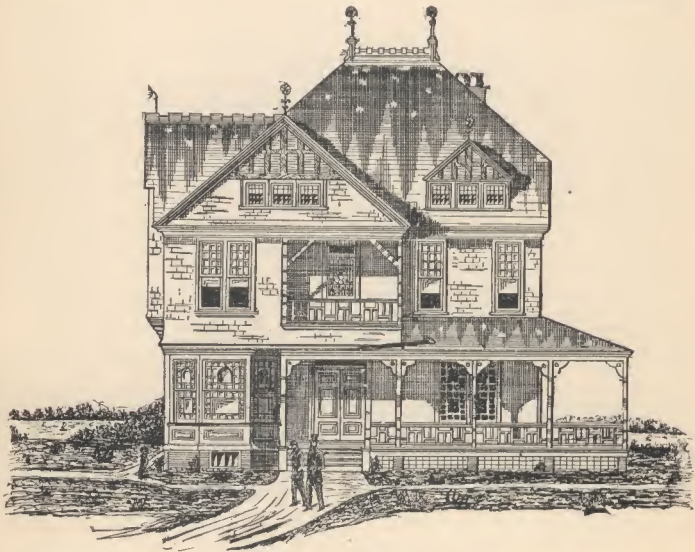


Fig. 94.—FRONT ELEVATION.

five windows, and inside stairs to the first story. Hight of ceiling, $6\frac{1}{2}$ feet.....FIRST STORY (fig. 98).—The hight of ceiling is 10 feet. The principal entrance is from the veranda through double doors to a hall which is nearly square, containing the main stairs, and connecting with the drawing-room, library, and dining-room. The drawing-room extends the length of right side, with an arch crossing midway. A double window is placed in the front, directly opposite a large open fire-place in the rear,

with single windows at each side of the fire-place. The side of the front section has a double window, and a single window in the rear, extending to the floor, is arranged as an entrance direct to the veranda. The library has a bay-window in front and a double window at the side; the space under the stairs provides a direct passage to the dining-room. This room is spacious, and is light-

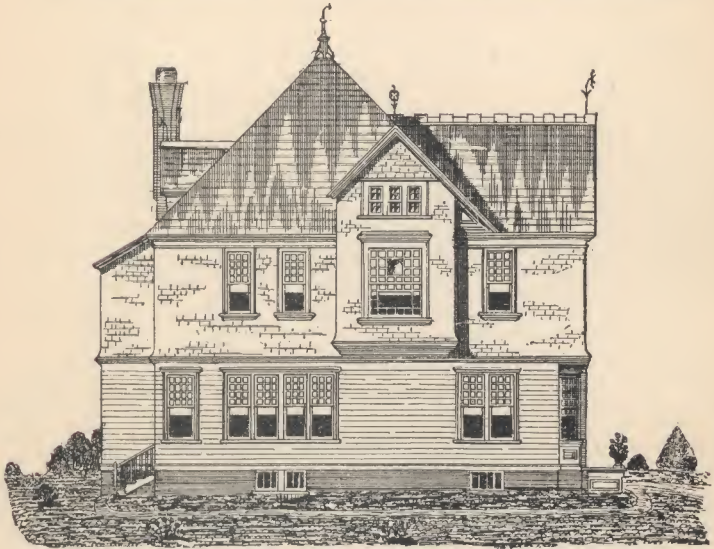


Fig. 95.—LEFT-HAND ELEVATION.

ed by a cluster of windows occupying nearly one entire end. It has a small china closet, and adjoins the rear entry, or private passage, which is also fitted for the caterer's use. It will be observed that no kitchen is provided for in this plan. A portion of the cellar may be converted into a kitchen, if desired. In the Southern States it has long been the custom to have the kitchen in a detached building, in which are also the servants' rooms. While this has its inconveniences, it allows the

house to be kept much cooler, and avoids the odors from cooking. Northern houses often have a detached kitchen, for summer use only, and there may be conditions under which it would be desirable to use a detached kitchen all the year. The design was originally made for several cottages at a watering place, where the kitchen and its attendant care and expense is entirely dis-



Fig. 96.—RIGHT-HAND ELEVATION.

pensed with in many instances, and the table is supplied and attended by the professional caterer promptly called by the telephone or speaking-tube.....**SECOND STORY** (fig. 99).—The height of ceiling is 9 feet. There are five chambers, large hall space, four closets, and a bath-room on this floor. A large window at the head of the main stairs, enlivened with colored glass, produces a very cheerful effect. An alcove opens from the hall to the

front balcony, affording opportunity for out-door airing to this story.....ATTIC (fig. 101).—Provision is made for a hall and three rooms in this story.....CONSTRUCTION.—The foundations are of broken stone and cement, laid in courses, and neatly pointed. All piers are of brick and cement. The chimney is of hard brick. There is a furnace in the cellar, and connected with a side flue of the



Fig. 97.—REAR ELEVATION.

chimney, with hot-air pipes connected with registers in the principal hall and rooms of the first story. The beams of the first story are "brick-filled" over the foundations to exclude outside air at the bottom of the main frame. The interior side walls and ceilings are hard finished on two coats of brown mortar and lath. In the main hall and principal rooms are stucco cornices. The frame is of sound, seasoned spruce timber. Studding

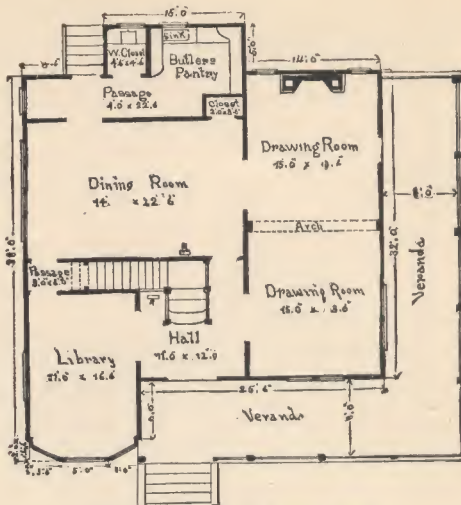


Fig. 98.—PLAN OF FIRST FLOOR.

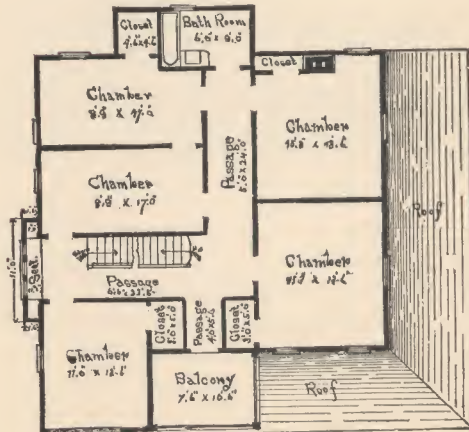


Fig. 99.—PLAN OF SECOND FLOOR.

and rafters are set 16 inches from centers, braced and bridged. The windows have plank frames, and $1\frac{1}{2}$ -inch sash, glazed and hung complete. The enclosing for the first story is of clear clapboards, and for the second story of cedar shingles, all upon sheathing. The roof is of cedar shingles. The floors in the two principal stories are double, the first of matched hemlock boards, and the second, tongued and grooved, of narrow, clear yellow pine. Attic floors, spruce, tongued and grooved; the

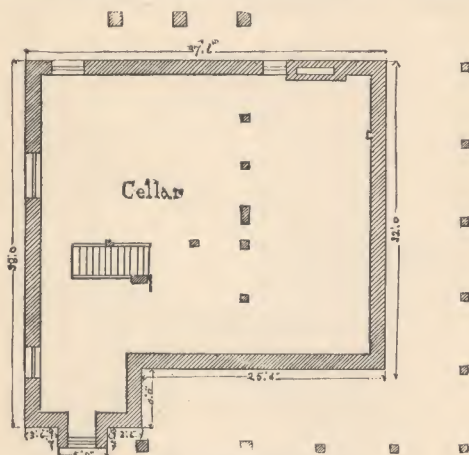


Fig. 100.—FOUNDATION PLAN.

outside floors, white pine. The main stairs are ash throughout, those leading to the attic of pine, boxed in with narrow ceiling. The inside finish is ash and red wood. The doors are paneled and molded, for the first story of red wood, all others of yellow pine. All knobs, roses, and escutcheons are bronze. Gas-pipes are provided for five ceiling lights and two side lights in the first story, for ten side lights in the second story, four side lights in the attic, and two side lights in the cellar. All pipes are concealed from sight except where neces-

sary for attachment of fixtures....PAINTING.—There are two coats outside, and wood-filled inside. The mantels in each story are of neat design in wood.

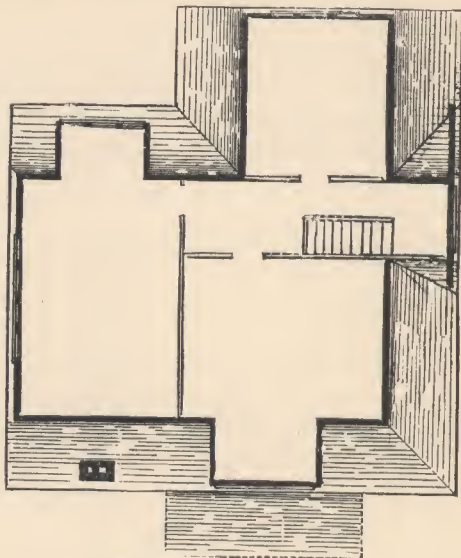


Fig. 101.—PLAN OF ATTIC.

ESTIMATE of materials and cost :

156 yards excavation, at 25c. per yard.....	\$39.00
1,600 ft. stone foundations (complete), at 15c. per ft.....	240.00
4,500 brick in chimneys and piers (complete), at \$15 per M.....	67.50
1 stone hearth (complete).....	5.00
1,300 yards plastering (complete), at 35c. per yard.....	455.00
405 feet stucco work (complete), at 25c. per ft.....	101.25
6 centers and corbels (complete), at \$1 each.....	6.00
135 yards concrete (complete), at 25c. per yard.....	33.75
15,000 ft. timber, at \$20 per M.....	300.00
350 sheathing boards, at 17c. each.....	59.50
425 clapboards, at 16c. each.....	68.00
Felting.....	15.00
130 bunches shingles, at \$1.50 per bunch.....	195.00
2,800 feet hemlock boards, at 3c. per ft.....	84.00
Cornices, outside (complete).....	110.00
Tin valleys, gutters, and leaders (complete).....	100.00
1,400 feet flooring (spruce), at 4c. per ft.....	56.00
3,000 feet flooring (inside), at 5c. per ft.....	150.00
1,500 feet flooring (outside), at 4c. per foot.....	60.00
Stairs (complete), \$200; verandas (complete), \$250.....	450.00
48 windows, full (complete), at \$12 each.....	576.00

6 windows, cellar (complete), at \$6 each.....	36.00
23 doors (complete), at \$10 each.....	230 00
6 kegs nails, at 4c., \$24; mantels, \$50.....	74.00
Plumbing, \$200; gas-pipe, \$50.....	250.00
Furnace, \$200; painting, \$400.....	600.00
Carting, \$50; incidentals, \$89.....	139.00
Carpenters' labor (not included above).....	500.00
Total cost of the building, complete.	<u>\$5,000.00</u>

DESIGN XXII.



Fig. 102.—FRONT.

A SUMMER COTTAGE, COSTING \$200.

These plans are for an economical Cottage, for an occasional summer residence of a family of four persons. It is suited to almost any place, either by the sea or on the mountain, where rest and recreation may be sought. It costs scarcely more than a first-class family tent (which it is designed in a manner to supplant), and is far preferable, as it affords better protection and accommodation, and is more convenient and comfortable. It also admits of some of the home-like ways of living. Tents supply

little comfort; their form necessitates a cramped, disagreeable position of the occupants, with barren walls, and very small facilities for housekeeping. They sway and vibrate with every wind, and are intolerable in a severe storm. Out-door shade, so desirable in summer, is usually already provided by large trees. A single low tree, with extended branches, may shade several cottages, and serve as support for swings and hammocks for the young folks. In connection with the building, stationary



Fig. 103.—SIDE VIEW OF SUMMER COTTAGE.

fixtures for bedsteads, tables, etc., arranged to fold up when not in use, save largely in room and furniture expenses.....EXTERIOR (figs. 102 and 103).—The upright boarding and battening of the sides, the figured gable barges, hooded projections, and steep roof, are appropriate in material and style. The building is set one foot above the ground, and the space below is enclosed by turfing around to the level of the sill. For better appearance, and to raise the floor further from the ground, an additional foot or two of elevation may be given, with increased banking or terrace.....ACCOMMODATION (figure

107).—The interior has two rooms and two closets. The front portion, intended for the family room, is of fair size, with two windows in each of two sides, and three doors, as shown. A folding-bed is built in one corner, and a large shelf between the windows at *A*; sufficient room remains for a center-table, chairs, etc. The rear room, or kitchen, has two windows, an outside door, and a closet. A circular shelf and a stove are placed at the side of the closet. A bunk constructed in the opposite

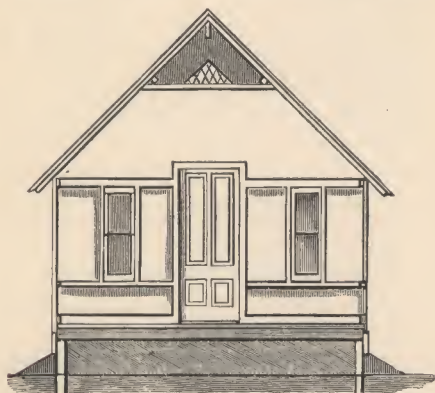


Fig. 104.—INTERIOR OF FRONT.

end of the room, serves as a seat during the day, and for a bed at night. A table is hung against the partition....
CONSTRUCTION.—The foundation may be of stone, or posts set in the ground. The floor timber is framed together—levelled on the foundation, and floored over, and the edges cut even with the sills. The upright frame of $1\frac{1}{4}$ by 5-inch plank, and the plates $1\frac{1}{4}$ by 6 inches, are then placed in position, with openings for doors and windows, as shown in figure 105. The exterior boarding, $\frac{7}{8}$ by $9\frac{1}{2}$ -inch T. & G. pine, dressed on both sides, is then put on and battened. The roof is similarly boarded—with the center portion ceiled down, leaving an air

space above. At the ends of the air space in each gable, are openings through the siding for the passage of the heated air from under the roof. Similar openings in the ceiling over the center of each room, lead into the air space. Each opening is neatly finished with lattice work. The roof projects 8 inches, and has a 3-inch

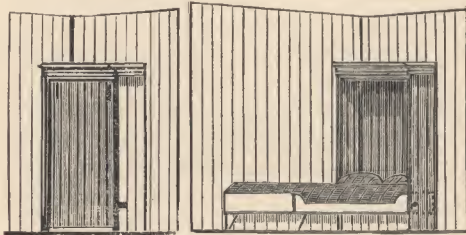


Fig. 105.—BED CLOSED.

BED OPEN.

marginal strip all around, with pierced barges in each gable, covered with pine shingles. The door openings are protected by shingle hoods resting on dressed trusses. The windows are neatly capped. Each window has battened shutters, with wrought-iron hinges and fastenings. The inside framework, $1\frac{1}{4}$ by 4 inches (see fig-

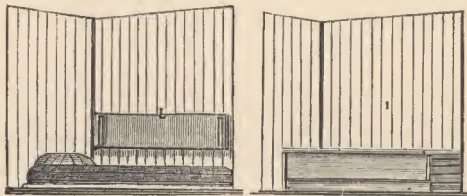


Fig. 106.—BUNK OPEN.

BUNK CLOSED.

ure 104), forms the jambs of the doors and sashes, to which they are hung with ordinary butts. The intervening spaces show as panels. The inside partition is $6\frac{1}{2}$ feet high, and has an 8-inch cap projecting mostly to the kitchen side; this cap strengthens the partition, and forms a shelf. The outside and partition doors are

paneled; the others are battened and clamped. The kitchen closet has four shelves, and the other, or front closet, has one shelf and two rows of hooks. The circular shelf at the side of the kitchen closet is set level with the bottom of the sash, and has a sheet of zinc attached to its inner edge extending to the floor, protect-

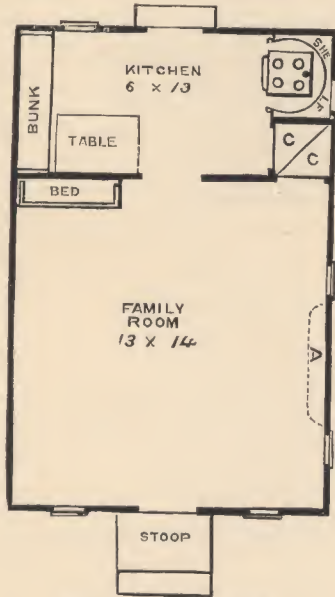


Fig. 107.—FLOOR PLAN.

ing the surrounding wood-work from the heat of the stove. The table is $2\frac{1}{2}$ by 4 feet, is hung to the partition, and supported on swinging braces. The bed frame is constructed of ceiling boards, as shown (see fig. 105); when opened, answers the purpose of a bedstead, and when closed serves as a closet for the bedding. The bunk (see fig. 106) is also of ceiling boards clamped together. These devices are easily made by any carpenter,

are inexpensive, and answer their purpose acceptably. The outside has two coats of paint, of any desired color, prepared and applied in the usual manner. The inside is stained and oiled.

ESTIMATE, cost of materials and labor :

378 ft. timber, at \$15 per M.....		\$5.67
2 sills, 3×7 in. 20 ft. long.	1 ridge, 2×7 in. 20 ft. long.	
11 beams, 3×7 in. 13 ft. long.	2 purlins, 3×4 in. 20 ft. long.	
30 flooring boards, at 28c. each.....		8.40
53 ceiling boards (dressed both sides), at 28c. each.....		14.84
54 ceiling boards (dressed one side), at 28c. each.....		15.12
53 battens (half round, 1½ inch wide), at 6c. each.....		3.18
10 planks, \$3.50; 15 boards, at 28c. each, \$4.20.....		7.70
14 bunches shingles, at \$1.25 per bunch.....		17.50
6 sashes, \$6; 3 paneled doors, at \$1.15 each.....		9.45
2 lengths of tile pipe, at 50c. per length.....		1.00
Hardware, nails, and incidentals		16.14
Painting, \$25; carting, \$6.....		31.00
Carpenter's labor, not included above.....		70.00
Total cost of the building, complete.....		\$200.00

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